



US Army Corps
of Engineers
Savannah District

Fort Bragg North Carolina

Solicitation Number

DACA21-03-R-0024

SOF Weapons Storage and Training Facility

FY-03, Line Item 43908

Volume II of III - Appendix E

April 2003

**THIS SOLICITATION IS UNRESTRICTED PURSUANT TO THE
"BUSINESS OPPORTUNITY DEVELOPMENT REFORM ACT OF 1988"
(PUBLIC LAW 100-656)**

**U.S. ARMY ENGINEER DISTRICT, SAVANNAH
CORPS OF ENGINEERS
100 WEST OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640**

APPENDIX E

GOVERNMENT FUNDED CONTRACTOR INSTALLED SHOP EQUIPMENT

The enlarged shop equipment location plans are included in this Appendix and the overall shop equipment layout plan is included in the contract drawings. The Contractor will review and coordinate with the using agency the final location of all shop equipment. The coordination of equipment placement, the required building construction and utility preparation (i.e. power, ventilation, isolation slabs, etc.) is part of the Base Bid. The procurement of the items specified in this Appendix will be accomplished separate from this contract. The installation of these items will be an Option to the Base Bid as indicated in the Bidding Schedule. If awarded, the Contractor shall install the electrical equipment and other related items listed in this Appendix. Installation shall include scheduling shipments from vendors, accepting delivery at the site, unloading, inventorying, securing and installing the items. Refer to Section 01010 for additional information.

Contents:

- Part 1: Shop Equipment List
- Part 2: Point of Contact
- Part 3: Shop Equipment Specifications
- Part 4: Enlarged Shop Equipment Location Plans

SHOP EQUIPMENT LIST

Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
1	Swiss turning center	Citizen E32 type 4	1	Machine Shop	\$350,000.00	217" x 104.5" x 67"	9240lbs	1
2	CNC turning center, large	Daewoo Puma 300LB	1	Machine Shop	\$185,000.00	194" x 99" x 81"	14770lbs	2
3	CNC turning center, small	Daewoo Puma 200LC	1	Machine Shop	\$90,000.00	64" x 63" x 61"	7720lbs	3
4	Vertical machining center	Bridgeport VMC 3020	1	Machine Shop	\$80,000.00	98" x 100" x 100"	7500lbs	4
5	Engine lathe	Romi Tormax	1	Machine Shop	\$24,000.00	80" x 82"	2519lbs	5
			1	Org. Maintenance	\$24,000.00	80" x 82"	2519lbs	
			1	Heavy Weapons	\$24,000.00	80" x 82"	2519lbs	
			1	Light Weapons	\$24,000.00	80" x 82"	2519lbs	
6	Barrel turret lathe	Bridgeport EZ Path	1	Machine Shop	\$48,000.00	98" x 51"	4000lbs	6
7	Surface grinder	Harig 618BW	1	Machine Shop	\$15,000.00	29" x 29"	69" x 45" operating space, 1350lbs	7
8	Mill	Bridgeport Series1	1	Machine Shop	\$16,000.00	8.2' x 5.3' x 6.8'	operating space, 2340lbs	8
9	Horizontal band saw	Kalamazoo 9AW	1	Machine Shop	\$5,800.00	69" x 52" x 63"	800lbs	9
10	Vertical band saw	Kalamazoo VF2012	1	Machine Shop	\$10,800.00	41" x 51" x 81"	1390lbs	10
11	Oven	Cress C1232D	1	Machine Shop	\$12,000.00	36" x 28" x 56"	885lbs	11
12	Tool & cutter grinder	Kowary 2 mod NUA-25M	1	Machine Shop	\$15,000.00	53" x 50" x 64"	2255lbs	12

Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
13	Automated mill	Bridgeport EZ Trak	2	Machine Shop	\$34,000.00	8.2' x 7.3' x 6.8'	operating space, 2340lbs	13
14	Automated lathe	Bridgeport EZ Path	1	Machine Shop	\$48,000.00	98" x 51"	4000lbs	14
15	Automated grinder	Shigiyu GP 30/60	1	Machine Shop	\$135,000.00	119" x 79" x 70"	6400lbs	15
16	Wire EDM	ONA S250	1	Machine Shop	\$130,000.00	97" x 125" x 85"	5300lbs	16
17	Sinker EDM	ONA H300	1	Machine Shop	\$140,000.00	97" x 91" x 95"	6000lbs	17
18	Reverse engineering	Renishaw "Cyclone"	2	Machine Shop	\$48,000.00	24" x 20" x 14"		18
19	Coordinate measuring machine	Mitutoyo Bright apex TC 504	1	Machine Shop	\$65,000.00	43" x 42" x 87"	1133lbs	19
20	Workbenches		1	Machine Shop	\$800.00	24"x 72"	Hardwood w/vises	20
			1	Chemical Refinishing	\$800.00	24"x 72"	Hardwood w/vises	
			1	FSS	\$800.00	24"x 72"	Hardwood w/vises	
			1	Org. Maintenance	\$800.00	24"x 72"	Hardwood w/vises	
			1	X-ray	\$800.00	24"x 72"	Hardwood w/vises	
			1	Optical	\$800.00	24"x 72"	Hardwood w/vises	
			1	Heavy Weapons	\$800.00	24"x 72"	Hardwood w/vises	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item

SOF WEAPONS TRAINING FACILITY FORT BRAGG, NC
(PN: 43908 - SN: DACA21-03-R-0024)

GOVERNMENT FUNDED CONTRACTOR INSTALLED
SHOP EQUIPMENT LIST

	Workbenches (continued)		1	Light Weapons	\$800.00	24"x 72"	Hardwood w/vises	
21	Tool cabinets		1	Machine Shop	\$1,900.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment	21
			1	FSS	\$1,900.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment	
			1	Org. Maintenance	\$1,900.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment	
			1	X-ray	\$1,900.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment	
			1	Heavy Weapons	\$1,900.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment	
			1	Light Weapons	\$1,900.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment	
22	Cabinets		1	Machine Shop	\$325.00	48" x 18" x 72"	Heavy duty, 5 shelf	22
			3	FSS	\$325.00	48" x 18" x 72"	Heavy duty, 5 shelf	
			2	Org. Maintenance	\$325.00	48" x 18" x 72"	Heavy duty, 5 shelf	
			2	Magnetic	\$325.00	48" x 18" x 72"	Heavy duty, 5 shelf	
23	Shelf units		1	Machine Shop	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	23
			1	Chemical Refinishing	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
			1	FSS	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
			1	Org. Maintenance	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item

**SOF WEAPONS TRAINING FACILITY FORT BRAGG, NC
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**GOVERNMENT FUNDED CONTRACTOR INSTALLED
SHOP EQUIPMENT LIST**

	Shelf units (continued)		1	X-ray	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
			1	Optical	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
			1	Heavy Weapons	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
			1	Light Weapons	\$225.00	36" x 18" x 84"	Heavy duty, 5 shelf	
24	Upright drill press	Clausing 1691	1	Machine Shop	\$2,400.00	16" x 28" x 73"	300lbs	24
			1	Org. Maintenance	\$2,400.00	16" x 28" x 73"	300lbs	
			1	Heavy Weapons	\$2,400.00	16" x 28" x 73"	300lbs	
			1	Light Weapons	\$2,400.00	16" x 28" x 73"	300lbs	
25	Arc welder	Miller Elec. Co.	1	Welding shop	\$9,266.67	19" x 18" x 25"	360lbs, Dial Arc 250; 35-300 Amp AC, 35-265AmpDC	25
26	MIG machines	Miller Elec. Co.	1	Welding shop	\$5,877.00	23" x 27" x 28"	321lbs, Mod. CP 252TS; 14-40v, requires 3 phase power	26
27	TIG machines	Miller Elec. Co.	1	Welding shop	\$4,541.00	23" x 26" x 40"	515lbs, Syncrowave 350 LX; 3- 400AMPS	27
28	Plasma cutter	Miller Elec. Co.	1	Welding shop	\$3,870.00	23" x 20" x 38"	410lbs, Spectrum 1250; 1.25: cut @ 10 IPM	28
29	Metal shear	U.S. Industrial Mach.	1	Machine Shop	\$27,900.00	76" x 106" x 62"	Atlantic 10'x1/4", 10500lbs	29
30	deleted							30
31	Sheetmetal former	U.S. Industrial Mach.	1	Machine Shop	\$31,900.00	61" x 109" x 98"	Atlantic press brake, 120 ton x 8', 17000lbs	31
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item

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SHOP EQUIPMENT LIST

32	Ultrasonic cleaner	I. Shor International	1	Heavy Weapons	\$16,795.00	52" x 36" x 24"	Model LE-250, 200+ rifles per day per cleaner	32
			1	Light Weapons	\$16,795.00	52" x 36" x 24"	Model LE-250, 200+ rifles per day per cleaner	
33	500kV X-ray, digital	Eastern NDT	1	X-Ray	\$95,000.00	55" x 98" x 84"	1340lbs, POC Joseph Monroe (GM) 804-458-1661	33
34	Magnetic Inspection	Magnawerks	2	Magnetic	\$90,000.00	12' x 8' x 9'	Mod. MDMV2926; Eastern NDT, POC Joseph Monroe (GM) 804-458-1661	34
35	Forklift, electric	Hyster	1	Weapons Vault	\$42,500.00		Hyster: E120XL3, 111" guard, 12k capacity	35
			1	Inspections Building	\$42,500.00		Hyster: E120XL3, 111" guard, 12k capacity	
36	Tow motor	Hyster	1	Facility	\$6,500.00		T5XT, 10k towed capacity	36
37	Modular storage bins	Stanley Vidmar	1	Stock Room (ASL)	\$250,000.00	12' to top of cabinet	Est based on Stanley Vidmar survey for equip. to store current part stockage	37
38	Vault Weapon Modular Storage System (STAKK)	Stanley Vidmar	1	Vault/ Storage Room	\$568,000.00	18' to bottom of top shelf	Est based on 18' STAKK system, w/ 2x2k rows and 2x4k rows	38
39	deleted							39
40	Laminar flow bench	Technovation/Bio Plus	1	Optical	\$7,000.00	48" x 28" x 85"	Class 1 for unconditioned room	40
41	Environmental chamber	I. Shor International	1	FSS	\$1,200.00	3' x 4' x 4'		41
	Environmental chamber	I. Shor International	1	Optical	\$1,200.00	3' x 4' x 4'		
42	Welding table	Weld Plus Inc	1	Welding shop	\$800.00	4' x 16'		42
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item

43	Sand blaster, cabinet	Kehm Equipment	1	Refinishing Shop	\$8,600.00	42" x 72" x 82"	Pro-Former 3642 System; \$3,138.00 associated cost for accessories	43
44	Dust collector	I. Shor International	1	Refinishing Shop	\$3,050.00	25" x 25" x 58"	WhirlWind Mod. 3000; 3 HP, 3-5 hoods, 1200 cfm, 240v 1 phase	44
45	deleted							45
46	deleted							46
47	Heavy work table	A Plus Material Handling	30	Turn-In/Issue	\$424.06	96" x 48"	Mod. H193-X2	47
48	Light work table	A Plus Material Handling	9	Machine Shop	\$167.98	48" x 36"	Mod. H700-S-436	48
			4	Chemical Refinishing	\$167.98	48" x 36"	Mod. H700-S-436	
			6	FSS	\$167.98	48" x 36"	Mod. H700-S-436	
			4	Welding shop	\$167.98	48" x 36"	Mod. H700-S-436	
			9	Org. Maintenance	\$167.98	48" x 36"	Mod. H700-S-436	
			8	X-Ray	\$167.98	48" x 36"	Mod. H700-S-436	
			4	Magnetic	\$167.98	48" x 36"	Mod. H700-S-436	
			4	Optical	\$167.98	48" x 36"	Mod. H700-S-436	
	Light work table (continued)	A Plus Material Handling	6	Heavy Weapons	\$167.98	48" x 36"	Mod. H700-S-436	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
			6	Light Weapons	\$167.98	48" x 36"	Mod. H700-S-436	

			1	Turn-In/Issue	\$167.98	48" x 36"	Mod. H700-S-436	
			5	Inspections Building	\$167.98	48" x 36"	Mod. H700-S-436	
49	General cabinet	Fed Log Grainger Inc	3	Machine Shop	\$250.00	5' x 2' x 6'	Grainger.com	49
			2	Chemical Refinishing	\$250.00	5' x 2' x 6'	Grainger.com	
			1	FSS	\$250.00	5' x 2' x 6'	Grainger.com	
			1	Welding shop	\$250.00	5' x 2' x 6'	Grainger.com	
			3	Org. Maintenance	\$250.00	5' x 2' x 6'	Grainger.com	
			3	Heavy Weapons	\$250.00	5' x 2' x 6'	Grainger.com	
			3	Light Weapons	\$250.00	5' x 2' x 6'	Grainger.com	
50	Book case	Fed Log Grainger Inc	2	Machine Shop	\$200.00	4' x 18" x 6'	Grainger.com	50
			1	Chemical Refinishing	\$200.00	4' x 18" x 6'	Grainger.com	
			1	FSS	\$200.00	4' x 18" x 6'	Grainger.com	
			1	Welding shop	\$200.00	4' x 18" x 6'	Grainger.com	
	Book case (continued)	Fed Log Grainger Inc	2	Org. Maintenance	\$200.00	4' x 18" x 6'	Grainger.com	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
			1	X-Ray	\$200.00	4' x 18" x 6'	Grainger.com	

			1	Optical	\$200.00	4' x 18" x 6'	Grainger.com	
			2	Heavy Weapons	\$200.00	4' x 18" x 6'	Grainger.com	
			2	Light Weapons	\$200.00	4' x 18" x 6'	Grainger.com	
			1	Inspections Building	\$200.00	4' x 18" x 6'	Grainger.com	
51	Metal storage container	Fed Log Grainger Inc	1	Org. Maintenance	\$600.00	4' x 4' x 6'	Grainger.com	51
			1	Heavy Weapons	\$600.00	4' x 4' x 6'	Grainger.com	
			1	Light Weapons	\$600.00	4' x 4' x 6'	Grainger.com	
52	Welding table	Weld Plus	1	Welding shop	\$1,500.00	84" diameter	Mod. 24B3E30-EX, rotating, electric lift, 115v	52
53	Storage rack	Hyster	1	Org. Maintenance	\$641.03	96" x 96" x 48"	H 6939, 4 level	53
			1	Heavy Weapons	\$641.03	96" x 96" x 48"	H 6939, 4 level	
			1	Light Weapons	\$641.03	96" x 96" x 48"	H 6939, 4 level	
54	Storage rack	Hyster	1	Org. Maintenance	\$188.70	22" x 22" x 84"	HHSR-2284, 9 level, 2400lbs cap.	54
			1	Heavy Weapons	\$188.70	22" x 22" x 84"	HHSR-2284, 9 level, 2400lbs cap.	
	Storage rack (continued)	Hyster	1	Light Weapons	\$188.70	22" x 22" x 84"	HHSR-2284, 9 level, 2400lbs cap.	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
55	Storage rack	Hyster	1	Org. Maintenance	\$63.99	40" x 40"	H13-HSR, 500lbs/opening (36)	55

			1	Heavy Weapons	\$63.99	40" x 40"	H13-HSR, 500lbs/opening (36)	
			1	Light Weapons	\$63.99	40" x 40"	H13-HSR, 500lbs/opening (36)	
56	deleted							56
57	deleted							57
58	deleted							58
59	deleted							59
60	Cabinet, fireproof	A Plus Material Handling	1	Welding shop	\$710.00	31 1/4" x 31 1/4" x 65"	XD 5038, 2 shelf	60
61	Master mechanic toolkit	GSA	1	Machine Shop	\$1,872.48		5180-00-699-5273	61
			1	Chemical Refinishing	\$1,872.48		5180-00-699-5273	
			1	FSS	\$1,872.48		5180-00-699-5273	
			1	Org. Maintenance	\$1,872.48		5180-00-699-5273	
			1	X-Ray	\$1,872.48		5180-00-699-5273	
			1	Magnetic	\$1,872.48		5180-00-699-5273	
	Master mechanic toolkit (continued)	GSA	1	Heavy Weapons	\$1,872.48		5180-00-699-5273	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
			1	Light Weapons	\$1,872.48		5180-00-699-5273	

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SHOP EQUIPMENT LIST

62	Mobile toolbox	GSA	1	Machine Shop	\$175.63	26 3/8" x 18" x 34"	5140-01-010-4776	62
			1	FSS	\$175.63	26 3/8" x 18" x 34"	5140-01-010-4776	
			1	Welding Shop	\$175.63	26 3/8" x 18" x 34"	5140-01-010-4776	
			1	Org. Maintenance	\$175.63	26 3/8" x 18" x 34"	5140-01-010-4776	
			1	Heavy Weapons	\$175.63	26 3/8" x 18" x 34"	5140-01-010-4776	
			1	Light Weapons	\$175.63	26 3/8" x 18" x 34"	5140-01-010-4776	
63	Weapons cleaning machines	Safety Kleen	2	Machine Shop	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	63
			1	FSS	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	
			2	Org. Maintenance	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	
			1	X-Ray	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	
			2	Heavy Weapons	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	
			2	Light Weapons	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	
	Weapons cleaning machines (cont.)	Safety Kleen	28	Turn-In/Issue	\$140.69	24 1/4" x 35 3/4" x 35 3/8"	Mod. 34 w/all fluids and service support for HAZMAT removal	
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
64	30 gal. Container	McMaster-Carr Supply Co.	6	Machine Shop	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	64

			3	FSS	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	
			6	Org. Maintenance	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	
			3	X-Ray	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	
			6	Heavy Weapons	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	
			6	Light Weapons	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	
			41	Turn-In/Issue	\$68.08	18 1/4" x 27 1/2"	4482T16; HAZMAT approved, steel	
65	deleted							65
66	Secure cabinet	McMaster-Carr Supply Co.	1	Org. Maintenance	\$1,383.05	48" x 19 1/8" x 52"	46085T12; 1/8: thick, double deadbolt, 1/2"hasp, lifting lugs	66
			1	X-Ray	\$1,383.05	48" x 19 1/8" x 52"	46085T12; 1/8: thick, double deadbolt, 1/2"hasp, lifting lugs	
			1	Optical	\$1,383.05	48" x 19 1/8" x 52"	46085T12; 1/8: thick, double deadbolt, 1/2"hasp, lifting lugs	
			1	Heavy Weapons	\$1,383.05	48" x 19 1/8" x 52"	46085T12; 1/8: thick, double deadbolt, 1/2"hasp, lifting lugs	
			1	Stock Room	\$1,383.05	48" x 19 1/8" x 52"	46085T12; 1/8: thick, double deadbolt, 1/2"hasp, lifting lugs	
	Secure cabinet (continued)	McMaster-Carr Supply Co.	1	Light Weapons	\$1,383.05	48" x 19 1/8" x 52"	46085T12; 1/8: thick, double deadbolt, 1/2"hasp, lifting lugs	
67	Surface plate	Mitutoyo 36"	1	Machine Shop	\$2,000.00	36" x 36"x 6"	900lbs	67
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
68	Refinishing tank	custom	5	Refinishing Shop	\$1,000.00	3' x 6' x 3'	drain plug 2" off bottom, on legs/stand	68

69	Overhead hoist	Jet/Northern Tools Co.	1	Chemical Refinishing	\$1,399.99	n/a	1ton cap., 10' lift, 8' control	69
			1	Welding Shop	\$1,399.99	n/a	1ton cap., 10' lift, 8' control	
70	Package scan X-Ray		1	Inspections Building	\$130,000.00	6' x 6' x 8'	Placed vicinity loading dock for incoming shipments from vendors	70
71	Metal detectors		1	Weapons Facility Lobby	\$5,000.00	5' x 2' x 9'	Main entrance and loading dock area	71
			1	Inspections Building	\$5,000.00	5' x 2' x 9'	Main entrance and loading dock area	
72	deleted							72
73	deleted							73
74	Digital profile projector	Mitutoyo QC220	1	Machine Shop	\$7,500.00		Projector on cart	74
75	Linear height gage	Mitutoyo 518-201	1	Machine Shop	\$2,400.00			75
76	Indicators	Mitutoyo	8	Machine Shop	\$200.00		Software	76
77	Post processors	FeatureMILL 3D	1	Machine Shop	\$13,995.00		Software	77
78	Post processors	SolidM Module 3D	1	Machine Shop	\$1,495.00		Software	78
79	Post processors	Fetaure TURN	1	Machine Shop	\$4,995.00		Software	79
80	Post processors	SolidM module 2.5D	1	Machine Shop	\$1,495.00		Software	80
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
81	Post processors	FeatureMILL Network	1	Machine Shop	\$3,000.00		Software	81

82	Tech support/upgrades	FeatureMILL 3D	1	Machine Shop	\$2,695.00		Software	82
83	Micrometer	Mitutoyo 293-369	6	Facility	\$169.00		Software	83
84	Micrometer	Mitutoyo 293-370	4	Facility	\$210.00		Handheld tools	84
85	Micrometer	Mitutoyo 293-371	3	Facility	\$250.00		Handheld tools	85
86	Micrometer	Mitutoyo 293-372	2	Facility	\$270.00		Handheld tools	86
87	Hardness tester	Fowler ARK521	1	Machine Shop	\$10,950.00	8" x 18" x 13"	Table top and manually operated	87
88	Hand tools		1	Facility	\$7,000.00		Handheld tools	88
89	End mill set, etc.		1	Machine Shop	\$65,000.00			89
90	Laser micrometer	Mitutoyo LSM9506	2	Machine Shop	\$10,000.00		Handheld tools	90
91	Overhead electrical hoist	Grainger Inc, Kelly Sales	1	Welding Shop	\$1,200.00			91
92	deleted							92
93	Sheetmetal toolkit	UNICOR	2	Machine Shop	\$1,576.45			93
94	Welder toolkit	GSA	3	Welding shop	\$405.07			94
95	Machinist toolbox	GSA	6	Machine Shop	\$119.22			95
Line Item	Nomenclature	Vendor/Mfr	Qty	Function/ Location	Cost (1ea)	Dimension (WxLxH)	Remarks	Line Item
96	Mechanic toolbox, small	GSA	6	Machine Shop	\$96.07			96

			2	Chemical Refinishing	\$96.07			
			2	FSS	\$96.07			
			2	Welding Shop	\$96.07			
			4	Org. Maintenance	\$96.07			
			2	X-Ray	\$96.07			
			2	Magnetic	\$96.07			
			2	Optical	\$96.07			
			4	Heavy Weapons	\$96.07			
			4	Light Weapons	\$96.07			
97	Weapons storage units		200	Vaults	\$500			97
98	Arbor press	Dayton	1	Machine Shop	\$227.00	8" x 18" x 13"	Table top and manually operated	98
99	Vapor trace machine		-	Inspections Building		-	Hand held device	99

POINT OF CONTACT

Equipment POC Listing

SUBJECT	ORGANIZATION	POC	PHONE #	EMAIL	REMARKS
Arm. Facility	Facility Manager, SME				
	SOCOM				
	USASOC				
	USASOC Physical Security				
	SPT BN Project Manager				
AIT	Army Logistics Agency (DA); AIT Tech Managers				
	Automated Identification Systems (AIS)	Mike Nolan	800-247-1177; (614)-432-3300; FAX (614)-431-3307	miken@ais-co.com	www.ais-co.com
Modular Storage (STAKK Sys.; Mezzanine Sys.)	Stanley Vidmar	Ryan Shoneider	899-523-9482 ext 38556 FAX: 843-388-0209	Rschneider@stanleyworks.com	Facility Uses: Main Vault, Parts Storage room
	TF 180th SOAR, F CO	CW4 Mark Broxterman, SFC Harris	COMM: (270)-798-1082/1251; DSN prefix 635		Arm. Facility Uses: Main Vault, Parts Storage room
Ultra Sonic Weapon Cleaners	I. Shor International	20 Parkway West, Mt. Vernon, NY 10552	(914)-667-1100; FAX (914)-667-0190	shorinternational@attglobal.net	
	Altronic	Eric Helbors	(201)-512-8056		
	TEDELLA Inc	Claire Carlson, Tronix Div of TED	(803)-478-8984	ecclairsc@yahoo.com	
	Ultrasonics USA	750 Corporate Dr. Mahwah, NJ	1-800-262-6262; FAX (201) 529-2176	sales@ultronicusa.com	
X-Ray	Eastern MTD	Joseph Monroe (GM)	(804)-458-1661		
	TEDELLA Inc	Claire Carlson, Tronix Div of TED	(803)-478-8984	ecclairsc@yahoo.com	

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Equipment POC Listing

Magnetic Particle Inspection	Eastern MTD	Joseph Monroe (GM)	(804)-458-1661		
	TEDELLA Inc	Claire Carlson, Tronix Div of TED	(803)-478-8964	eclairsc@yahoo.com	
Heat Treating Ovens	Consolidated Equipment Inc.	PO BOX 415, St Claire, MI 48079	(810)-329-5800; (810)-329-5875		www.consequip.com
	Lucifer Furnace Inc.		1-800-378-0095		2048 Bunnell Rd, Warrington, PA 18976
	Baker Furnace Inc.		1-800-237-5675	sales@bakerfurnace.com	www.bakerfurnace.com
Fork Lift	Gregory Pool Equipment Co.	Kevin Hatfield	(910)-977-3140; FAX (910)-424-0022		Catterpillar Forklifts; Hope Wells, NC
	Hyster	Lacie Taylor	(910) 893-5030 (H)		www.hystermideast.com
Sand Blaster	Trinco Tool Company	34600 Commerce Rd, Fraser, MI 48026	1-800-5-TRINCO		
	I. Shor International	20 Parkway West, Mt. Vernon, NY 10552	(914)-667-1100; FAX (914)-667-0190	shorinternational@attglobal.net	
	Weld Plus	4766 River Rd, Cincinnati, OH 45233	1-800-288-9414; FAX: (513) 467-3585	welplus@weldplus.com	www.weldplus.com
	Thomas Regional	5 Penn Plaza, New York, NY 10552			www.thomasregional.com
	Kehm Equipment Inc.	5415 W. 59th Av, Unit F, Arvada, CO 80003	(303) 422-6000; FAX (303) 422-6023	sales@kehm.com	www.kehm.com
Down Draft Table	Air Flow Systems Down Draft	11370 Pagemill Rd, Dallas, TX 75243-8306	1-800-818-6185; (214) 503-8008		
Tog/Tow Motor	North Western Motor Co Inc.	1125 Starr Av, Ean Claire, WI 54703	(715)-835-3151		
	Hyster	Lacie Taylor	(910) 893-5030 (H)		www.hystermideast.com
Dust Chamber, Environmental Chamber	I. Shor International	20 Parkway West, Mt. Vernon, NY 10552	(914)-667-1100; FAX (914)-667-0190	shorinternational@attglobal.net	
Machine Shop	Bridgeport				
	Grainger	Fayetteville, NC			www.bpt.com
	Tormax				www.grainger.com
	Penn Tool Co.	1776 Springfield Av., Maplewood, NJ 07040	1-800-526-4956; FAX 973-761-1494	info@pennitoolco.com	www.pennitoolco.com
	EZPATH				www.bpt.com (look for a link)
	US Industrial Machines				www.bpt.com (look for a link)
					www.usindustrialmachines.com

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Equipment POC Listing

Welding Shop	Weld Plus	4766 River Rd, Cincinnati, OH 45233	1-800-288-9414; FAX: (513) 467-3585	welplus@weldplus.com	www.weldplus.com
	Grainger	Fayetteville, NC			www.grainger.com
	Shop Inc				http://autopn.safeshopper.com
	Thermal Arc				www.thermalarc.com
	Miller Electric Distributing Co.	508 Eastern Blvd., Fayetteville, NC 28311	(910) 483-1451 / 0169		http://miller.info.net; www.millerwelds.com
	Victor Equipment				www.victorequip.com
	Stoody				www.stoody.com
Tables, Cabinets, Shelving, Racks, Fittings	A Plus Material Handling				
	Grainger	Fayetteville, NC			www.grainger.com
	Calico	PO BOX 2005, Annapolis Junction, MD 20701	1-800-638-0829; FAX (301) 498-2056		
	Hyster	Lacle Taylor	(910) 893-5030 (H)		www.hystermideast.com
Architects	Knight Architects				
IMO	DCSIM				
DCSENGR	DCSENGR				

DRAFT

SHOP EQUIPMENT SPECIFICATIONS

LINE ITEM #1
SWISS TURNING CENTER

STANDARD MACHINE SPECIFICATIONS:

Max. machining diameter	32mm(1.26")
Max. machining length per chuck	320mm(12.6")
Max. drilling diameter	16mm(0.63")
Max. threading diameter(dap & die)	M12(0.47")
Spindle speed	130-6,000rpm
Spindle speed change	S4-digits direct command
Rotary Spindles:	
Max. drilling dia.	10mm(0.393")
Max. threading dia.	M8(0.315")
Spindle speed	225-4,460rpm
	(S4-digits direct command)
Backwork:	
Max. chucking dia. of Back spindle	32mm(1.26")
Max. backwork length	320mm(12.6")
Max. drilling dia.	12mm(0.47")
Max. threading dia.	M12(0.47")
Back spindle speed	150-5,000rpm
	(S4-digits direct command)
Number of tools installable (additional with special multi-tools)	20 (two decagonal turrets) (20 sets each)
Number of turret indexes	10x2 sets/turret
Tool holders	36mm-12mm dia pin positioning
Tool size:	16 x 16 x 90mm
Rapid traverse rate:	
X1 and X2 axes	12 meters(472.44")/minute
Z1 Z2 and Z3 axes	16 meters(630")/minute
Y axis	10 meters(393.7")/minute
C axis	100 rpm
Least input increments:	
X1 and X2 axes	0.001mm(0.0001") dia.
Z1 Z2 and Z3 axes	0.001mm(0.0001")
Y axis	0.001mm(0.0001")
C axis	0.001°
Standard bar length	2,500mm(12')
Center height	1,040mm(40.94")
Motors:	
Main spindle drive	5.5w(7.5H) AC spindle motor
Back spindle drive	2.2kw(3.0HP) AC spindle motor
Rotary spindle drive (Turret 1)	1.5kw(2.0HP) inverter motor
Rotary spindle drive (Turret 2)	0.75kw(1.0HP) AC spindle motor
Turret indexing	1.0kw(1.4 HP) x 2
Hydraulic power unit	1.5kw(2.0HP)
Coolant	0.4kw(0.54HP)
Lubricant	0.004kw(0.005HP)
Power supply	16KVA
Weight	4,200kg(9240 lbs)

STANDARD ACCESSORIES:

- *Synchronous rotary guide bushing unit
- *Chucking unit
- *Rotary guide bushing drive unit
- *C-axis controlling unit
- *Rotary spindle drive unit for Turret 1
- *Rotary spindle drive unit for Turret 2
- *Back spindle unit
- *Back spindle chucking unit
- *Workpiece separator
- *Coolant unit
- *Hydraulic unit
- *Lubricant unit
- *Door switch

STANDARD CNC FUNCTIONS

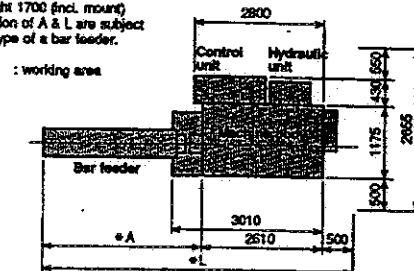
CNC unit:	Cincom SystemIV
Display monitor:	14" color CRT
Number of axes to be controlled:	7 axes (X ₁ , X ₂ , Z ₁ , Z ₂ , Z ₃ , C ₁ , Y)
N. of control lines:	3 lines
Command input:	incremental & absolute
Feed command:	feed per revolution & feed per minute
Tool offsets:	80 pairs
Program memory:	equivalent to 40 meters of tape length
I/O interface:	RS232C

Chamfering, corner rounding
 Balanced cut
 Simultaneous threading of different pitches
 Cross machining
 Synchronizing controlling axes
 Superimposing controlling axes
 Hobbing cycle (G114.3)
 Polygonal cutting cycle (G114.2)
 Background editing

◆All specifications are subject to change without prior notice.

FLOOR LAYOUT

max. height 1700 (incl. mount)
 * Dimension of A & L are subject to the type of a bar feeder.



unit: mm

CITIZEN WATCH CO., LTD.

Precision Machinery Div.

440 Shimotomi, Tokorozawa-shi, Saitama-ken 359-8511, JAPAN Tel: 81-42-942-6268 Fax: 81-42-942-9190

U.S.A. & CANADA MARUBENI CITIZEN-CINCOM INC.

SINGAPORE OFFICE CITIZEN WATCH CO., LTD. SINGAPORE

U R O P E CITIZEN MACHINERY EUROPE GmbH

HONG KONG OFFICE CITIZEN MACHINERY HONG KONG

Tel: 1-201-818-0100

Tel: 65-732-3055

Tel: 49-711-3906-100

Tel: 852-2357-1681

Fax: 1-201-818-1877

Fax: 65-734-8377

Fax: 49-711-3906-106

Fax: 852-2357-1021

All specifications are subject to change without prior notice.

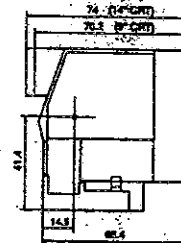
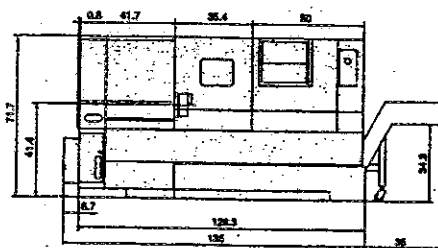
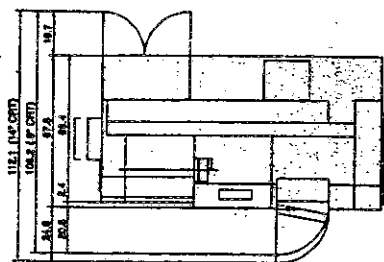
SOF Weapons Training Facility
Fort Bragg, North Carolina

DACA21-03-R-0024

LINE ITEM #2
CNC TURNING CENTER, LARGE

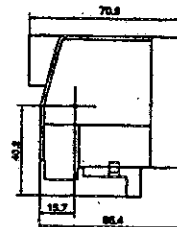
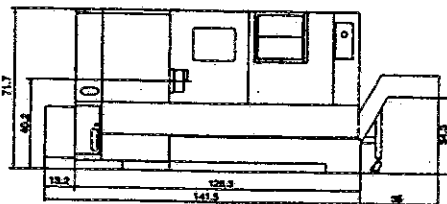
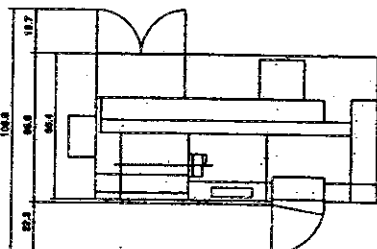
● External Dimensions

PUMA300B/MB

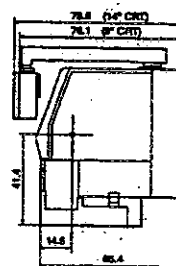
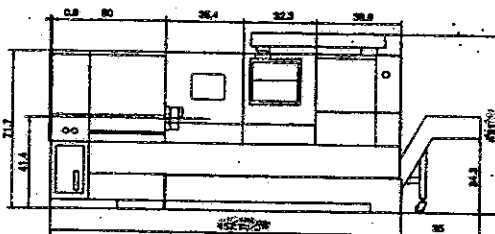
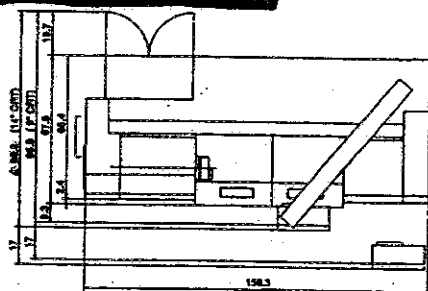


unit : inch

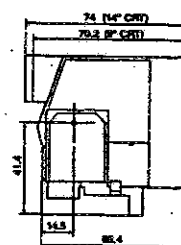
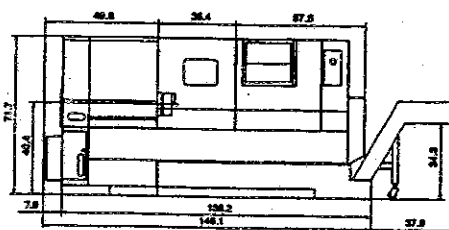
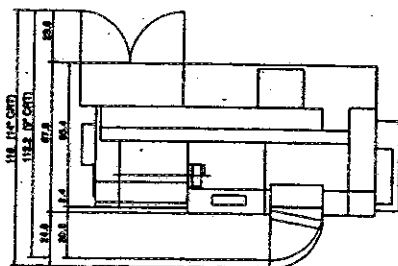
PUMA300C



PUMA300LB/LC/LMB



PUMA300S/MS



Standard Features

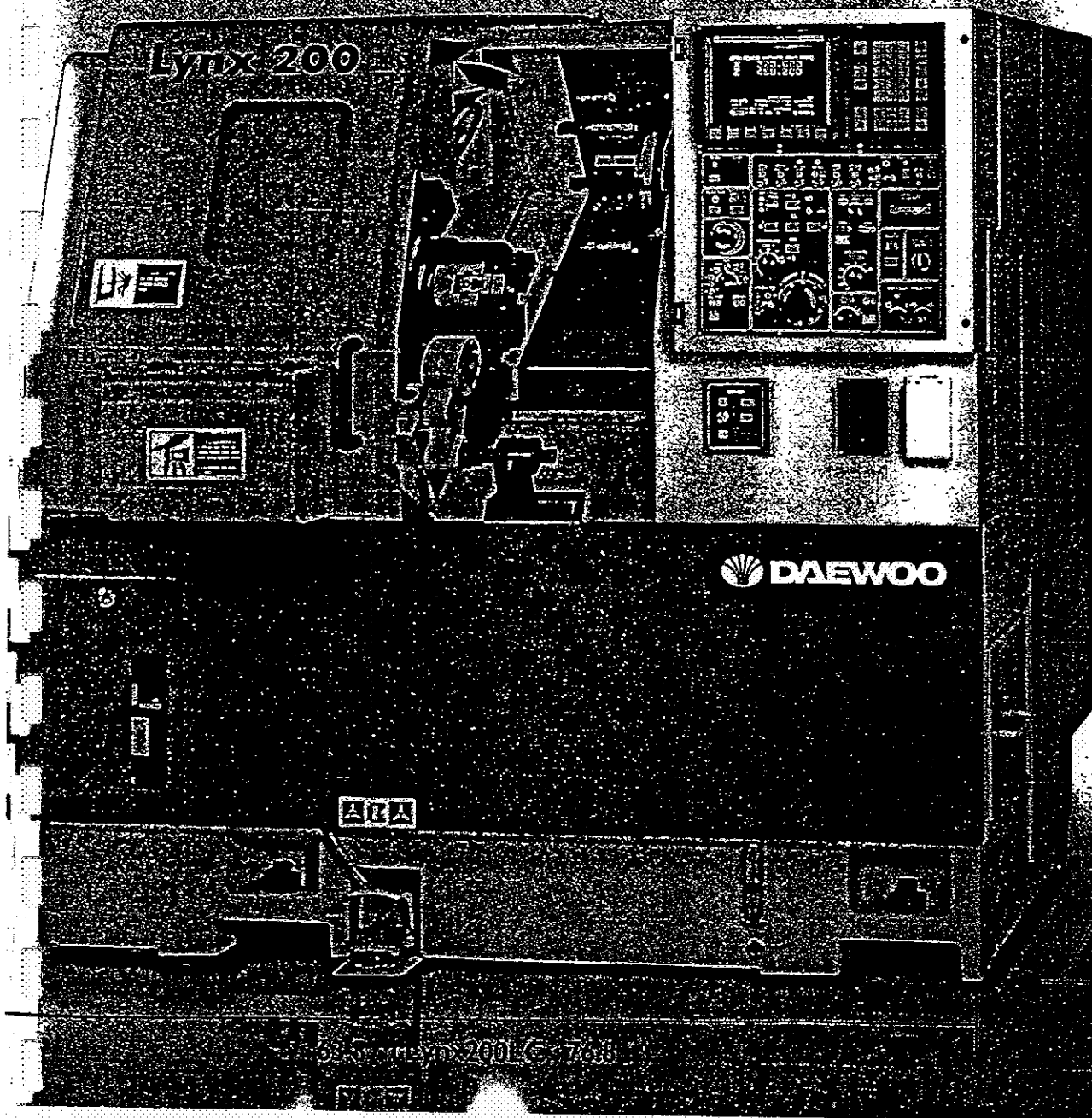
- Hydraulic power unit
- Full enclosure chip and coolant shield
- Hyd. chuck (exc. S/MS)
- Symbolic operation panel
- Door interlock switch
- U-drill holder & sleeves
- Air blast for chuck jaw cleaning (on S, MS type)
- Standard tooling kit (tool holders & boring sleeves)
- Programmable tailstock (exc. S/MS)
- Coolant supply equipment
- Work light
- Soft jaws
- Splash guard with lexan sheet
- Various safety precautions name plate
- Automatic tool setter
- Parts catcher (on M, S, MS type)
- Hand tool kit, including small hand tool for operations
- Proximity switches for quill position detection
- Lubrication equipment
- Leveling bolts & plates
- Dead center (exc. S/MS)
- Safety torque limiter clutches
- Oil skimmer

Optional Features

- Hardened & ground jaws
- Dual chucking pressure
- Chip conveyor & chip bucket
- Patrol lamp (yellow, red, green)
- Proximity switches for chuck clamp detection
- Auto steady rest
- Electric power transformer
- Bar feeder
- Special chucks
- Pressure switch for chucking pressure check
- Auto-door
- Collet chucks

LINE ITEM #3
CNC TURNING CENTER, SMALL

Requires Little Space...
Acquires Big Productivity!



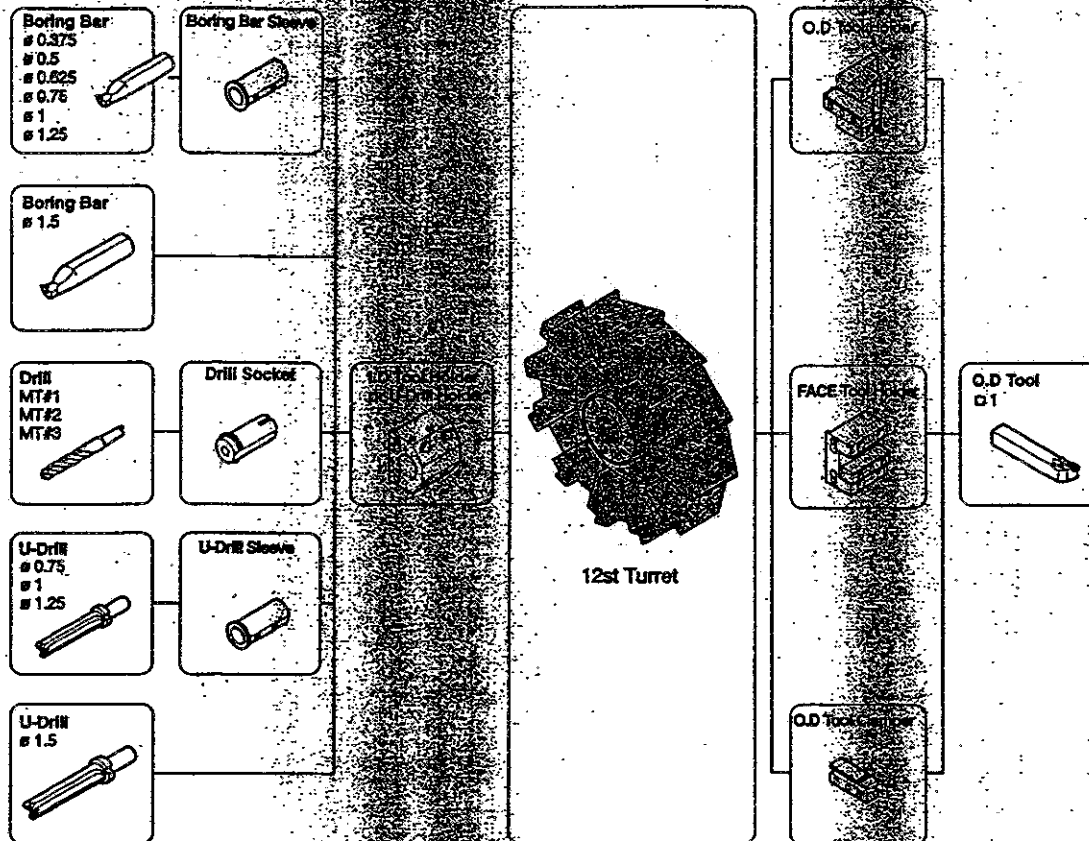
61.0"

DAEWOO LYNX 200 LG-7638

Tooling System

Lynx 200A/B/LC

unit : inch

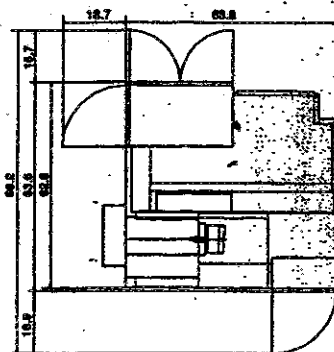


* I.D. Tool holder can easily be converted to U-Drill holder by adding a back cover.

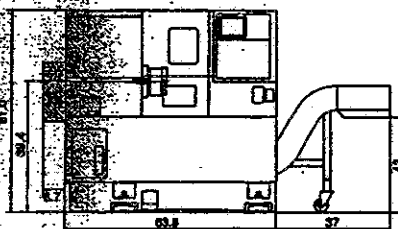
External Dimensions

unit : inch

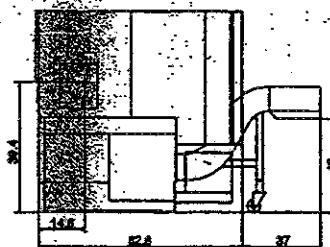
Lynx 200A/B Top View



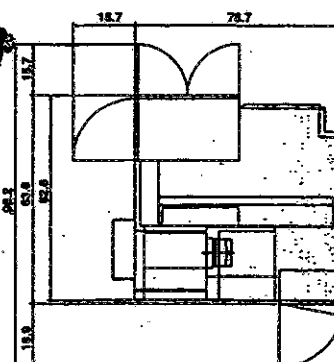
Front View



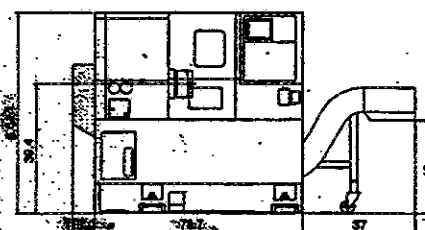
Side View



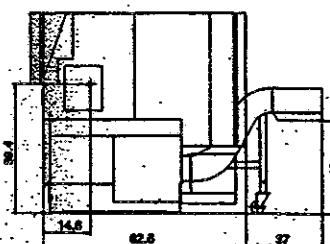
Lynx 200LC Top view



Front View

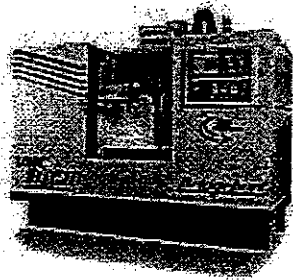


Side View



LINE ITEM #4
VERTICAL MACHINING CENTER

Machining Centers > XV-Series > VMC 3020 XV



- Rugged, gray, cast-iron construction
- Large, double-anchored, pre-tensioned 40mm ballscrews for higher accuracy, smoother motion, and a longer tool life
- User-friendly, GE Fanuc 2li control
- Exclusive, **FAST-OP** feature performs your often-used functions with a single keystroke
- XYZ travels: 30" x 20" x 20"
- Fast 3m/sec/sec acceleration rate
- 826 ipm rapid traverse rate on the X, Y, and Z axes
- 12 HP peak 8,000 rpm spindle motor
- High spindle torque equivalent to a 30 HP direct-drive motor
- 36" x 18" table with 5 T-slots
- 2,000-pound table load capacity
- Patented, automatic tool changer design for easy tool setup and maintenance
- 22 tool capacity
- Low voltage worklight standard
- Complete flood coolant system
- Centralized, automatic lubrication system

**LINE ITEM #5
ENGINE LATHE**

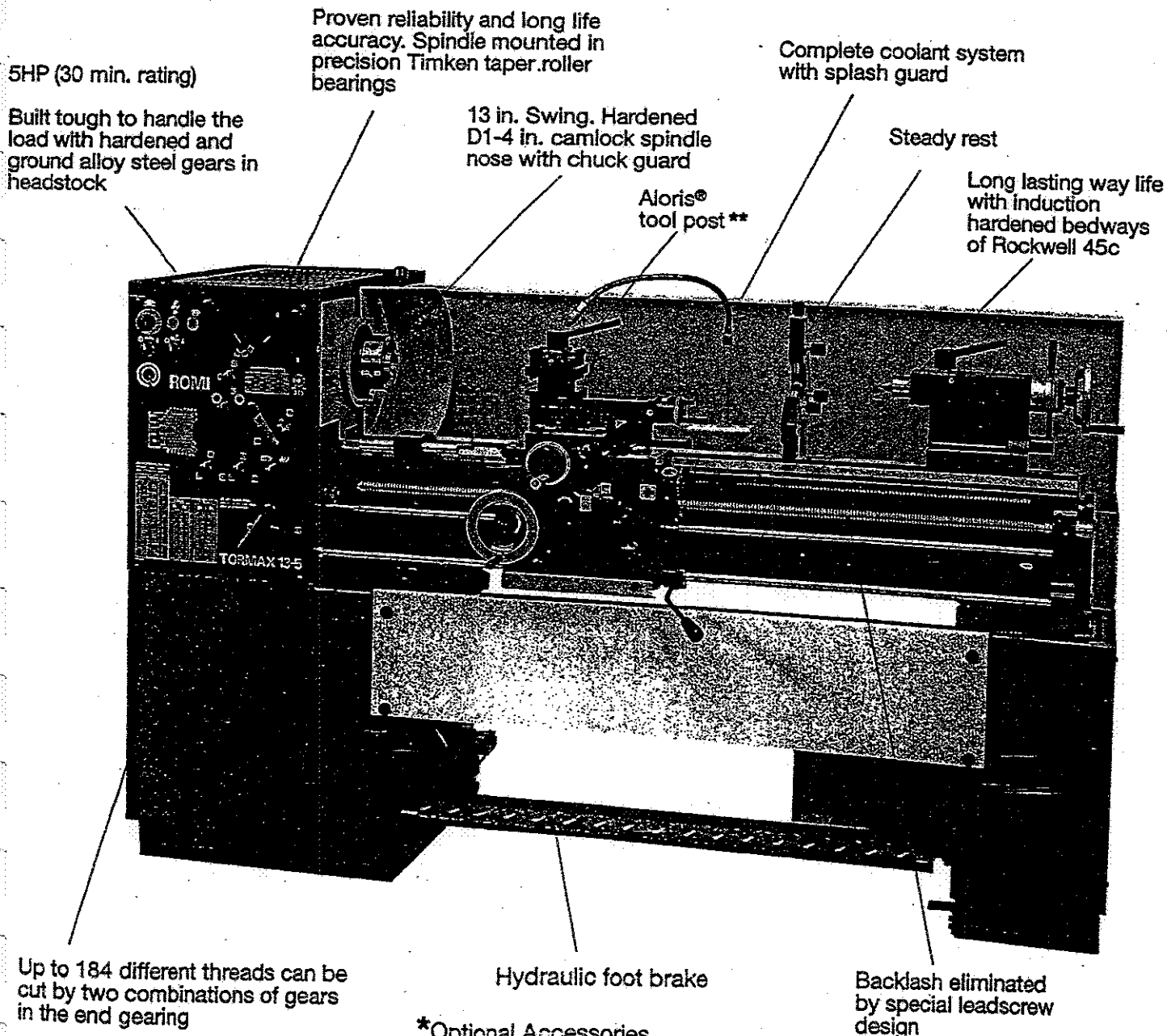
Bridgeport

ROMI TORMAX 13-5 & 16-8 Engine Lathes by Bridgeport

- **Rigid Design**
- **Accurate**
- **Easy to Run**

TORMAX 13-5 (40/60 in. Beds)

- Quality and workmanship guaranteed. Final bed alignment and geometry meets ISO/DR 1708 Standards. Built under continuous inspection during manufacturing and assembly. ISO 9001 Certified.
- Full support. Bridgeport backs every machine with nationwide parts, accessories, service and application engineering support.



5HP (30 min. rating)

Built tough to handle the load with hardened and ground alloy steel gears in headstock

Proven reliability and long life accuracy. Spindle mounted in precision Timken taper roller bearings

13 in. Swing. Hardened D1-4 in. camlock spindle nose with chuck guard

Complete coolant system with splash guard

Steady rest

Long lasting way life with induction hardened bedways of Rockwell 45c

Aloris® tool post**

Hydraulic foot brake

Backlash eliminated by special leadscrew design

Up to 184 different threads can be cut by two combinations of gears in the end gearing

*Optional Accessories

**Optional Romi Tool Post Shown

ROMI TORMAX Specifications

	TORMAX 13-5	TORMAX 16-5
ity		
ty Height of centers		8 in.
e between centers		40-60-80 in.
ver bed		16 1/2 in.
ver carriage wings		14 9/16 in.
ver cross slide		9 in.
lide travel		37 1/8 in.
le travel		47 1/8 in.
ction		3/4 x 3/4 in.
		12 in.
		13 7/8 in.
lock		7.5 hp
nose		1.07 in.
iameter through spindle		1.31 in.
i reduction sleeve		1.57 in.
diameter at front bearing		1.57 in.
of spindle speeds		20
speed range		45 to 2,880 rpm
ix Threads and Feeds		
dinal feeds (QTY)		100 to 1,540 in/min
eds		100 to 1,540 in/min
ads		1.31 in.
threads		1.57 in.
threads		1.57 in.
al Pitch threads		1.57 in.
rew TP/DIA.		1.57 in.
ik		1.57 in.
rel		1.57 in.
umeter		1.57 in.
per-hole		1.57 in.
tor		1.57 in.
ystem pump motor		7.5 hp
g Data		1.57 in.
th 1,000 mm (40 in.) center distance:		1.57 in.
ace required		8 1/2 x 3 1/4 ft.
mate net weight		3,850 lbs.
ntents boxed for export		211 cu. ft.
		617 lbs. (300 kg) per 40 in. dia.

Specifications subject to change without notice.



Sales and Service *by*

Bridgeport.

BRIDGEPORT MACHINES, INC.
500 Lindley Street, Bridgeport, CT 06606

Call Toll Free 1-800-243-4292



Notice: Bridgeport Machines, Inc. provides protective devices for the safe use of this equipment. Operation of this equipment may cause injury if the protective devices are not properly installed. A comprehensive safety manual is provided with all machines offered by Bridgeport Machines, Inc. and recommended safe operating procedures must be adhered to.

SOF Weapons Training Facility
Fort Bragg, North Carolina

DACA21-03-R-0024

LINE ITEM #6
BARREL TURRET LATHE

Built For Speed & Convenience

EZPATH FEATURES:

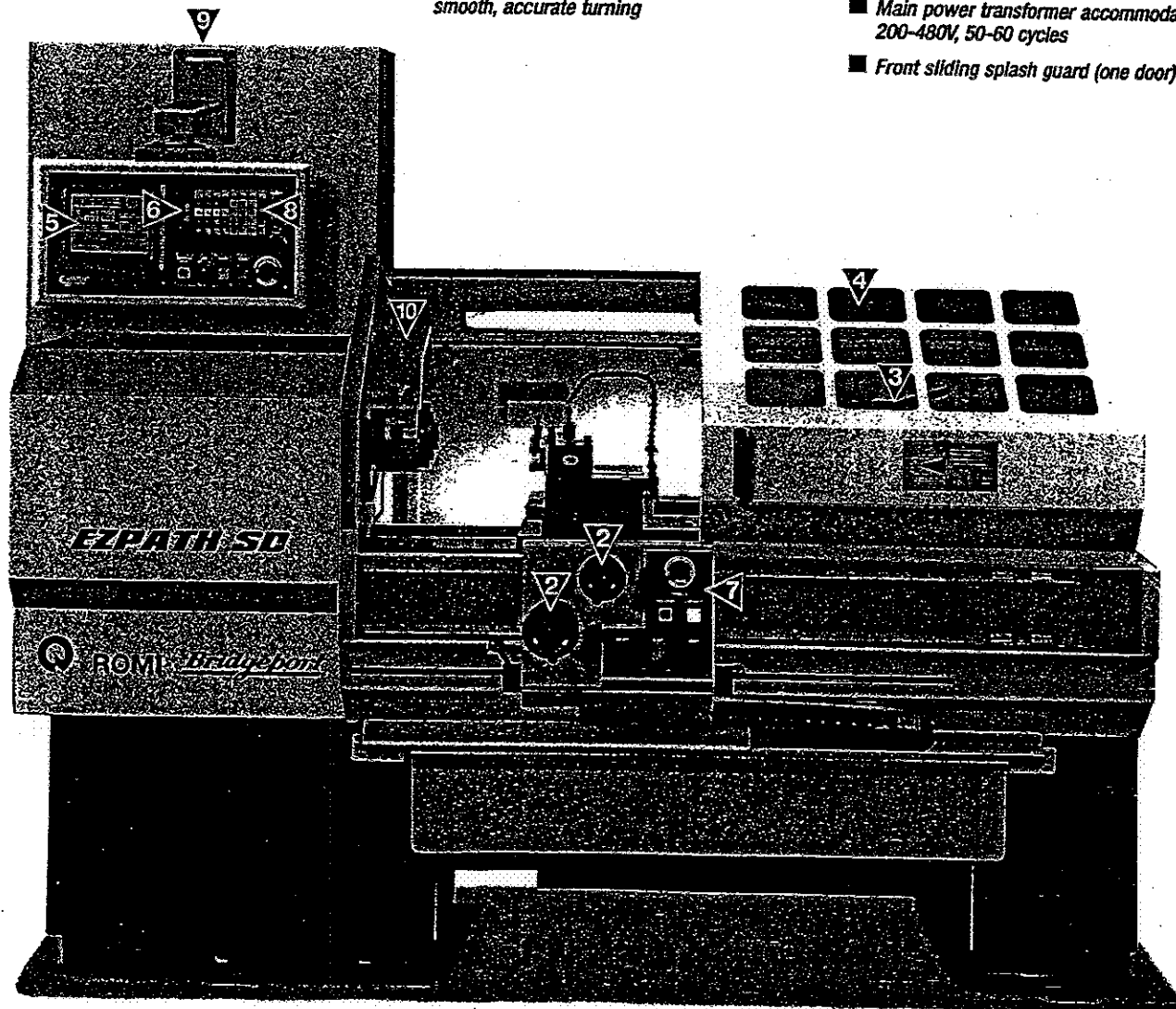
- 1 Two-speed variable AC motor with direct-driven CNC headstock on EZPATH SD & IISD for powerful, smooth and quiet operation
- 2 Dual electronic handwheels can be set to move with the carriage or disengaged to slide on their own track
- 3 Manual tailstock with dual clamps and tang stop for heavy drilling, inch and metric quill graduations
- 4 Standard sliding door is tilted back, with a large window, for a clear view of the work area
- 5 Bridgeport 2-axis control with 9-inch grayscale monitor
- 6 Built-in disk drive and RS-232 port

- 7 Remote operator panel conveniently mounted on the apron
- 8 Sealed keyboard
- 9 Single-unit CNC controller can be removed for easy maintenance
- 10 Chuck guard

Additional Features:

- Spindle control lever with dynamic brake within easy reach
- All cast iron construction
- Optional spindles with large through-holes for EZPATH SD and EZPATH IISD
- Precision ballscrews
- Induction hardened & ground ways with Turcite-coated saddle and cross slide for smooth, accurate turning

- Automatic lubrication system
- CNC headstock features two angular contact spindle bearings in front, one large roller bearing in the rear for precise accuracy and repeatability. All bearings are synthetically greased for life
- Headstock provides a variable speed motor with constant surface speed control
- Coolant system with 3/4 HP (0.54 Kw) pump and 25-gallon (95 liter) tank
- Rear splash guard with removable door
- Removable chip pan for easy cleaning
- Indexable tool post and holder set for square cutting tools and boring bars
- Sealed work-light panel spans the bed length to provide bright illumination of entire turning area
- Main power transformer accommodates 200-480V, 50-60 cycles
- Front sliding splash guard (one door)



Specifications

EZPATH SD

EZPATH IISD

EZPATH IIIS

EZPATH IIISL

CAPACITY

Height of centers	8.46 in. (215 mm)	10.03 in. (255 mm)	11.41 (290 mm)	13.77 in. (350 mm)
Distance between centers	40 in. (1000 mm)	40, 60 or 80 in. (1000, 1500 or 2000 mm)	40, 80 or 120 in. (1000, 2000 or 3000 mm)	40, 80 or 120 in. (1000, 2000 or 3000 mm)
Swing over bed	17 in. (431 mm)	20 in. (508 mm)	23 in. (584 mm)	27 in. (686 mm)
Swing over cross slide	8 in. (203 mm)	10 in. (254 mm)	12.59 in. (320 mm)	16.53 in. (420 mm)
Swing over carriage wings	15.75 in. (400 mm)	17.7 in. (450 mm)	17.3 (440 mm)	21.25 in. (540 mm)
Cross-slide (X) travel	8.66 (220 mm)	11 in. (280 mm)	12.59 in. (320 mm)	14.96 in. (380 mm)

BED

Width	12 in. (305 mm)	13.5 in. (340 mm)	15 in. (380 mm)	15 in. (380 mm)
Height	13 in. (332 mm)	12.5 in. (320 mm)	15 in. (380 mm)	15 in. (380 mm)

HEADSTOCK

Spindle nose	A2-5 ASA	A2-6 ASA	A2-8 ASA	A2-8 ASA
Hole diameter through spindle	2.08 in. (53 mm)	2.5 in. (65 mm)	3.15 in (80 mm)	3.15 in (80 mm)
Range of spindle speeds	50 to 4000 RPM	40 to 3000 RPM	32 to 2500 RPM	25 to 2000 RPM
Range I	50 to 2000 RPM	40 to 1500 RPM	32 to 625 RPM	25 to 500 RPM
Range II	100 to 4000 RPM	80 to 3000 RPM	32 to 1250 RPM	500 to 2000 RPM
Spindle nose - Option 1	A2-6 ASA	A2-8 ASA	■	■
Hole diameter through spindle	2.56 in. (65 mm)	3.15 in. (80 mm)	■	■
Range of spindle speeds	40 to 3000 RPM	20 to 2000 RPM	■	■
Range I	40 to 1500 RPM	20 to 1000 RPM	■	■
Range II	80 to 3000 RPM	40 to 2000 RPM	■	■
Spindle nose - Option 2	D1-6 CAMLOCK	D1-8 CAMLOCK	■	■
Hole diameter through spindle	2.56 in. (65 mm)	3.15 in. (80 mm)	■	■
Range of spindle speeds	40 to 3000 RPM	20 to 2000 RPM	■	■
Range I	40 to 1500 RPM	20 to 1000 RPM	■	■
Range II	80 to 3000 RPM	40 to 2000 RPM	■	■

FEEDS

Longitudinal rapid traverse (z-axis)	394 ipm (10,000 mm/min)	394 ipm (10,000 mm/min)	394 ipm (10,000 mm/min)	394 ipm (10,000 mm/min)
Cross rapid traverse (x-axis)	295 ipm (7500 mm/min)	295 ipm (7500 mm/min)	295 (7500 mm/min)	295 (7500 mm/min)

TAILSTOCK

Maximum quill travel	4.7 in. (120 mm)	5.11 in. (130 mm)	7.08 in. (180 mm)	7.08 in. (180 mm)
Quill diameter	2.36 in. (60 mm)	3.15 in. (80 mm)	3.94 in. (100 mm)	3.94 in. (100 mm)
Quill taper hole	4 MT	4 MT	5 MT	5 MT

MOTOR

Main motor	10 HP (7.3 Kw)	15 HP (11 Kw)	20 HP (15 Kw)	20 HP (15 Kw)
------------	----------------	---------------	---------------	---------------

DIMENSIONS AND WEIGHTS

Clear space required (approx.)	51" x 98" (1300 x 2500 mm)	60" x 107" (1524 x 2700 mm)	63" x 107" (1600 x 2700 mm)	63" x 107" (1600 x 2700 mm)
Approximate net weight	4000 lbs. (1814 kg)	6284 lbs. (2850 kg)	7040 lbs. (3190 kg)	7040 lbs. (3190 kg)

Dimensions and specifications throughout this booklet subject to change without prior notice

Notice: Bridgeport Machines, Inc. provides instructions for the safe use of this equipment. Operation of this equipment may cause injury if the protective devices are removed. A comprehensive safety manual is included with all machines offered by Bridgeport Machines, Inc. and recommended safe operating procedures must be adhered to.



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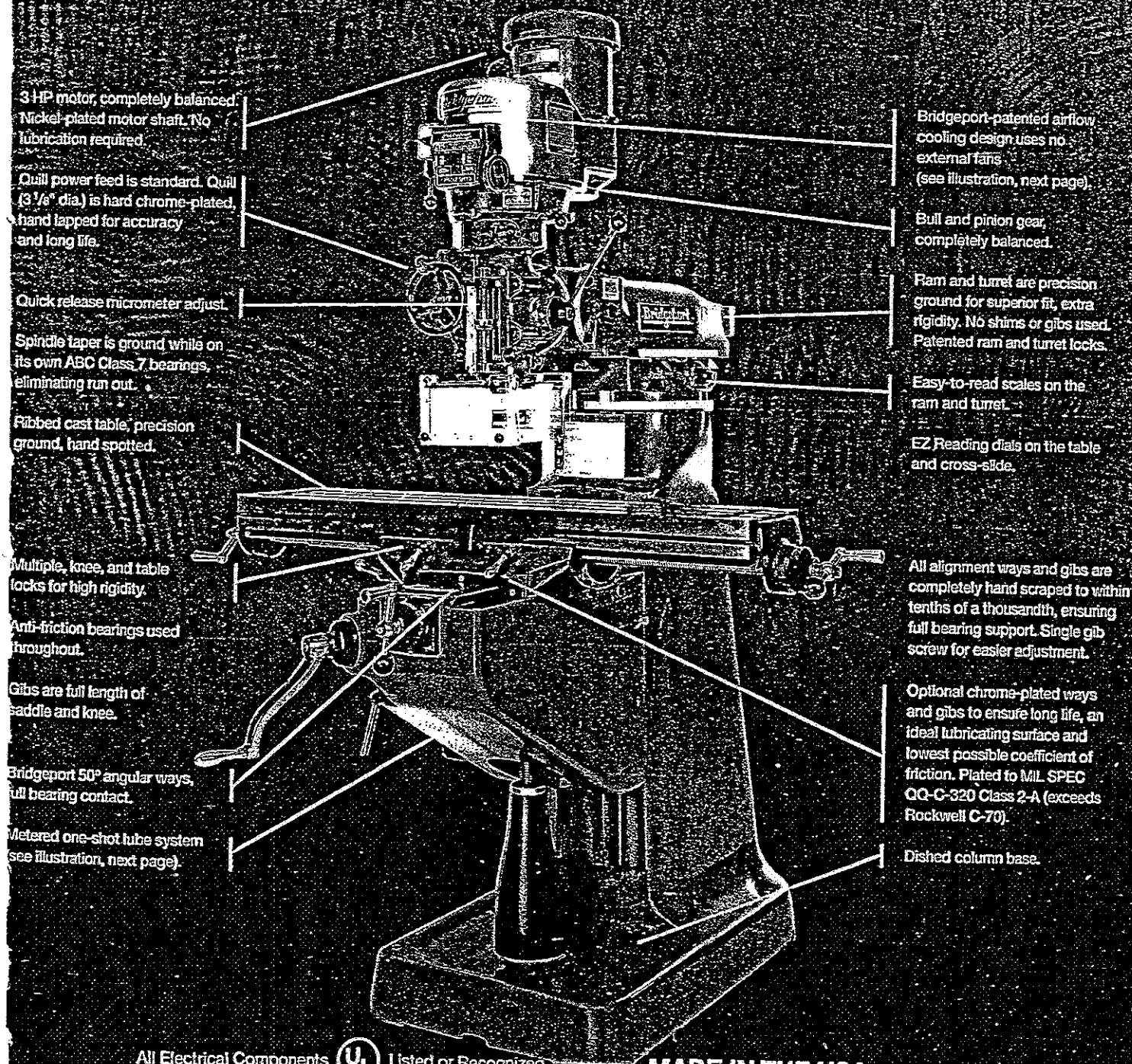
**SOF Weapons Training Facility
Fort Bragg, North Carolina**

DACA21-03-R-0024

**LINE ITEM #8
MILL**

Bridgeport THE SERIES I

Versatile long-term performance from the original all-purpose mill.
For over 50 years, the Bridgeport manual mill has been the "original first step" in machining for metalworking shops throughout the world.



All Electrical Components



Listed or Recognized

MADE IN THE USA

The Industry Standard ... that keeps getting better.

The Bridgeport Series I Standard Mill is the original milling, drilling and boring machine. It's the mill that's completely manufactured, under strict quality control standards, in Bridgeport, Connecticut. We've built over 350,000 of them, and 50-plus years of experience and on-going refinement ensure that every Series I is the ultimate in rigidity and long life. Our one-piece column and base, integrally cast with added ribs, and our 2J head with its patented airflow cooling system, are just two of these innovations.

The long-term reliability of a Series I mill is the result of its design features, the quality of its components, and the craftsmanship of its hand-scraped ways and precision ground fits. We build every Bridgeport as though we're going to use it ourselves...even the paint finish is scrutinized before we ship it. That's why the resale value of a Bridgeport remains consistently high. The "bargain" imitators can't say that. Our competitive prices are a result of our higher volume...not from building a cheaper machine.

Bridgeport stands behind every Series I Standard Machine with the industry's best warranty: 24 months for parts, and 12 months for labor. Plus nationwide parts, service, and application engineering support are available through our network of select independent distributors and direct sales offices.

Bridgeport Machines, Inc. provides protective devices for the safe use of this equipment. Operation of this equipment may cause injury if the protective devices are removed. A comprehensive safety manual is provided with all machines offered by Bridgeport Machines, Inc. and recommended safe operating procedures must be adhered to.

SERIES I STANDARD

SPECIFICATIONS

Range

Table travel (X-axis) with 48" table	36 in. (914 mm)
Saddle travel (Y-axis)	12 in.* (305 mm)
Quill travel	5 in. (127 mm)
Quill travel w/3rd axis	4.5 in. (114 mm)
Knee travel (Z-axis)	16 in. (406 mm)
Ram travel	12 in. (305 mm)
Throat distance (min.)	6.75 in. (171 mm)
Throat distance (max.)	18.75 in. (476 mm)
Table to spindle nose gage line (min.)	2.5 in. (64 mm)
Table to spindle nose gage line (max.)	18.25 in. (463 mm)
Max. weight of workpiece	750 lbs. (341 kg)

Table Size

Standard	48 x 9 in. (1219 x 299 mm)
T-slots	3 @ 2.5 in. (64 mm) centers
T-slot size	0.625 in. (16 mm)
Height above floor (max.)	47.25 in. (1200 mm)

Spindle (2J Head)

Power rating 30 min duty cycle	3 hp (2.2 kw)
Power rating continuous	2 hp (1.5 kw)

Drilling Capacity

Power Quill Feed	3/8" Dia.
Manual Drilling Capacity	3/4" Mild Steel
Boring Range	6" Mild Steel
Quill Diameter	3 3/8"

Speed Range

High (Infinitely Variable)	500 - 4200 rpm
Low	60 - 500 rpm
Power Quill Feed	0.0015 in/rev (0.038 mm)
Manual Adjust	0.003 in/rev (0.152 mm) 0.006 in/rev (0.152 mm)

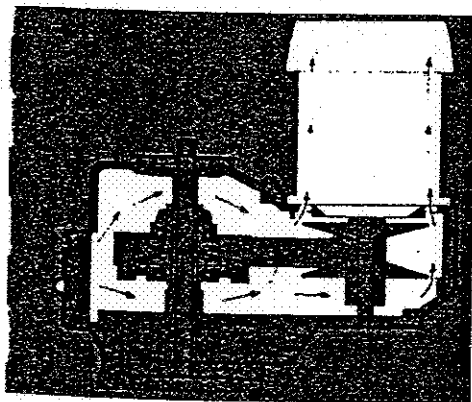
Space and Weight

Floor Area	8.2 x 5.3 ft. (2.5 x 1.6 m)
Height	6.8 ft. (2.1 m)
Net Weight	2340 lbs. (1061 kg)
Shipping Weight	2900 lbs. (1315 kg)

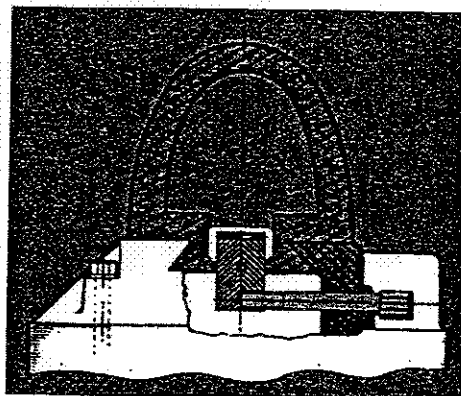
Power

Input power: 208/230/460 volts 3 phase, 50/60 cycles
Power Capacity: 4kVA
*Newall DRO 11.25" Travel

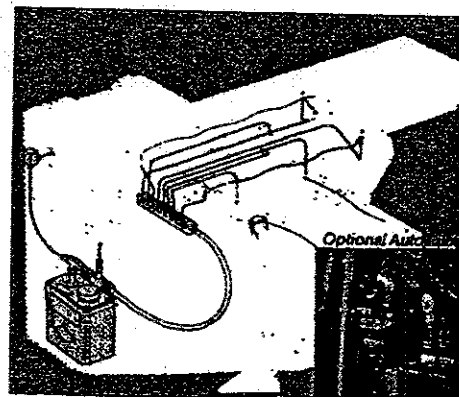
NOTE: Specifications subject to change without notice



Bridgeport's patented airflow cooling on our 2J head uses no external fans. The system prolongs bearing life and prevents expansion caused by heat build-up. No slots in the bearing cap (which can let foreign matter get into the head) are needed.



The ram is positioned on a ground, close fitted dovetail way. Backward and forward movement is through an accurate rack and pinion mechanism. The ram expands into the dovetail way for highly-rigid clamping and reduced vibration. (Clamping method patented.)



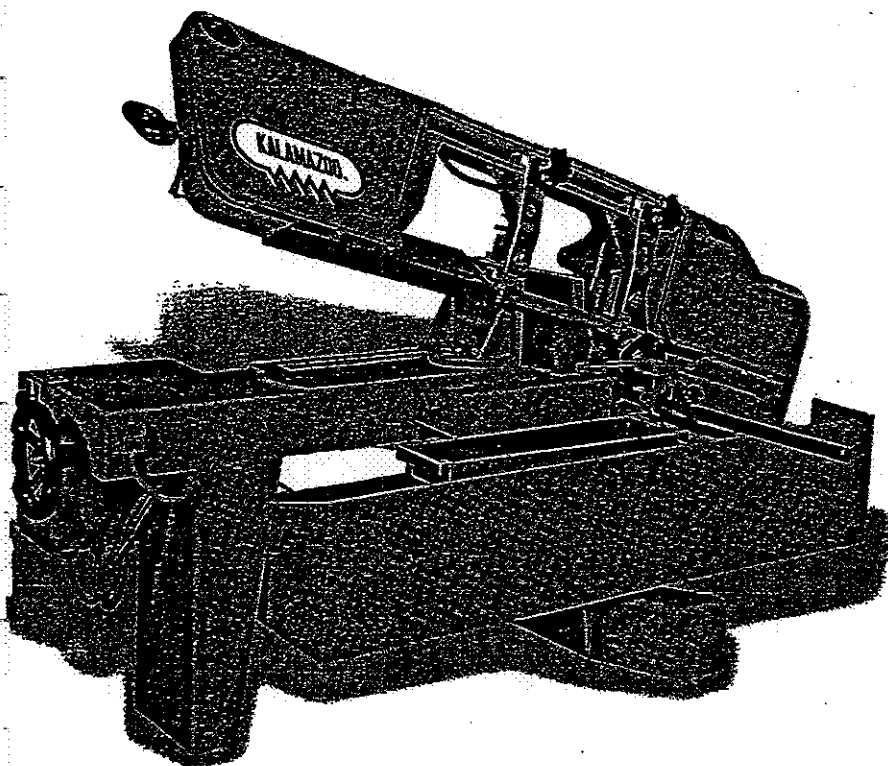
Correct lubrication protects the machine and its accuracy, while reducing maintenance and making the machine easier for the operator to work. Bridgeport's metered, one-shot lubrication system is operated by a single lever (which saves time). A series of metering valves ensures that the slideways and leadscrews get the proper amount of lubrication.

**SOF Weapons Training Facility
Fort Bragg, North Carolina**

DACA21-03-R-0024

**LINE ITEM #9
HORIZONTAL BAND SAW**

9" & 13" Wet Cutting Bandsaws



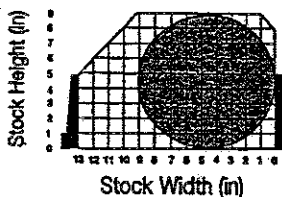
MODELS H9AW & 13AW

Features:

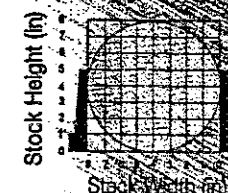
- Variable speed drive
- Quick and easy blade installation
- Rotary wire brush for chip removal to help improve blade life
- Enclosed gear box with gears in an oil bath
- Gravity fed head controlled by counterbalance springs working with a hydraulic cylinder to insure consistent feed pressure on the blade
- Swivel vise enables quick set-up for angle cuts up to 45°
- Two (2) Year Limited Warranty

H9AW Cutting Capacities:

Capacity at 90°



Capacity at 45°

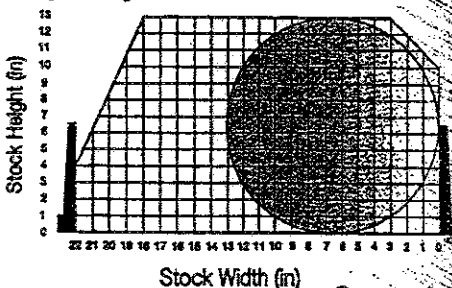


Specifications

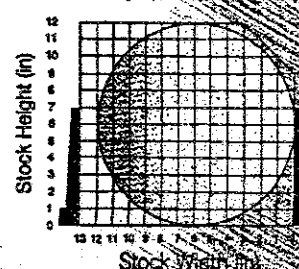
Model	H9AW	13AW
Motor	2 Hp 115/220v 1ph or 208/230/460 3ph	2 Hp 115/220v 1ph or 208/230/460 3ph
Band Wheel Dia.	14"	18"
Blade	1" x .035" x 10'-10 1/2"	1" x .035" x 13'-11"
Bed Height	25 1/2"	25 1/2"
Vise Opening	14"	23"
Blade Speeds	62-390 fpm Variable speed	65-345 fpm Variable speed
90° Cutting Capacity		
Round	9"	13"
Rectangular	5" x 13"	10" x 20"
45° Cutting Capacity		
Round	8"	12"
Rectangular	8" x 8"	9" x 13"
Width	69"	86"
Depth (with stock stop)	46" (51 1/2")	46" (51 1/2")
Height (head-up)	63"	70"
Height (head-down)	43"	38 1/2"
Net Weight	800 lbs.	1150 lbs.

13AW Cutting Capacities:

Capacity at 90°



Capacity at 45°



9" & 13" Wet Cutting Bandsaws

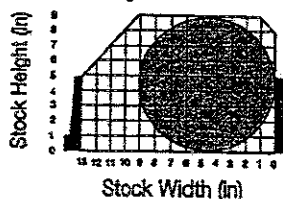
MODELS H9AW & 13AW

Features:

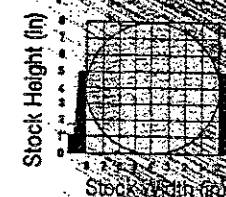
- Variable speed drive
- Quick and easy blade installation
- Rotary wire brush for chip removal to help improve blade life
- Enclosed gear box with gears in an oil bath
- Gravity fed head controlled by counterbalance springs working with a hydraulic cylinder to insure constant feed pressure on the blade
- Swivel vise enables quick set up for angle cuts up to 45°
- Two (2) Year Limited Warranty

H9AW Cutting Capacities:

Capacity at 90°



Capacity at 45°

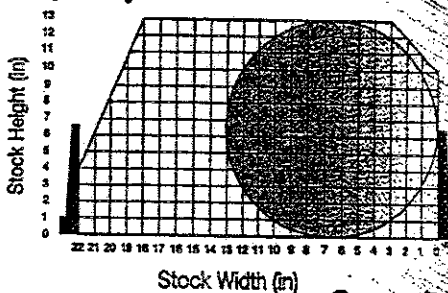


Specifications

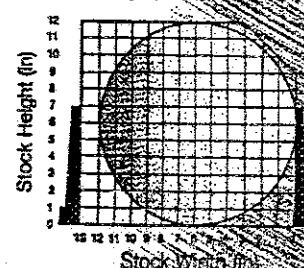
Model	H9AW	13AW
Motor	2 Hp 115/220v 1ph or 208/230/460 3ph	2 Hp 115/220v 1ph or 208/230/460 3ph
Band Wheel Dia.	14"	18"
Blade	1" x .035" x 10'-10 1/2"	1" x .035" x 13'-11"
Bed Height	25 1/2"	25 1/2"
Vise Opening	14"	23"
Blade Speeds	62-390 fpm Variable speed	65-345 fpm Variable speed
90° Cutting Capacity		
Round	9"	13"
Rectangular	5" x 13"	10" x 20"
45° Cutting Capacity		
Round	8"	12"
Rectangular	8" x 8"	9" x 13"
Width	69"	86"
Depth (with stock stop)	46" (51 1/2")	46" (51 1/2")
Height (head-up)	63"	70"
Height (head-down)	43"	38 1/2"
Net Weight	800 lbs.	1150 lbs.

13AW Cutting Capacities:

Capacity at 90°



Capacity at 45°



9" & 13" Wet Cutting Bandsaws

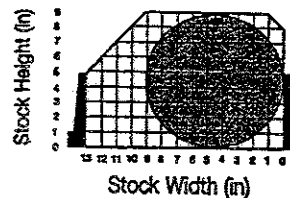
MODELS H9AW & 13AW

Features:

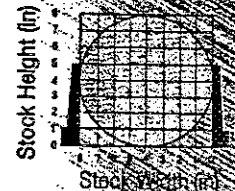
- Variable speed drive
- Quick and easy blade installation
- Rotary wire brush for chip removal to help improve blade life
- Enclosed gear box with gears in an oil bath
- Gravity fed head controlled by counterbalance springs working with a hydraulic cylinder to insure constant feed pressure on the blade
- Swivel vise enables quick set-up for angle cuts up to 45°
- Two (2) Year Limited Warranty

H9AW Cutting Capacities:

Capacity at 90°

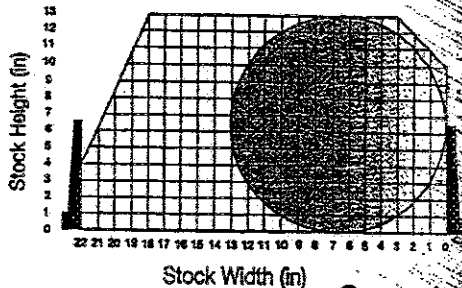


Capacity at 45°

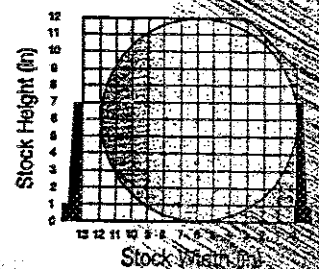


13AW Cutting Capacities:

Capacity at 90°



Capacity at 45°



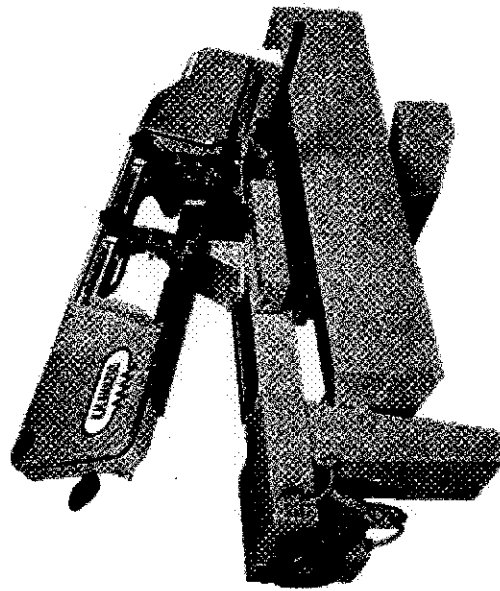
Specifications

Model	H9AW	13AW
Motor	2 Hp 115/220v 1ph or 208/230/460 3ph	2 Hp 115/220v 1ph or 208/230/460 3ph
Band Wheel Dia.	14"	18"
Blade	1" x .035" x 10'-10 1/2"	1" x .035" x 13'-11"
Bed Height	25 1/2"	25 1/2"
Vise Opening	14"	23"
Blade Speeds	62-390 fpm Variable speed	65-345 fpm Variable speed
90° Cutting Capacity		
Round	9"	13"
Rectangular	5" x 13"	10" x 20"
45° Cutting Capacity		
Round	8"	12"
Rectangular	8" x 8"	9" x 13"
Width	69"	86"
Depth (with stock stop)	46" (51 1/2")	46" (51 1/2")
Height (head-up)	63"	70"
Height (head-down)	43"	38 1/2"
Net Weight	800 lbs.	1150 lbs.



Home	Catalogs			
CNC	Drills	Lathes	Saws	
Grinders	Mills	Fabrication		

Models H9AW & 13AW



9" & 13" Wet Cutting Band Saw

Features

Specifications

Cutting Capacity

Accessories

Constructions Features

Features:

- Variable speed drive
- Quick and easy blade installation
- Rotary wire brush for chip removal to help improve blade life
- Enclosed gear box with gears in an oil bath

- Gravity fed head controlled by counterbalance springs working with a hydraulic cylinder to insure constant feed pressure on the blade
- Swivel vise enables quick set-up for angle cuts up to 45°
- Two (2) Year Limited Warranty

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Specifications:

Model	H9AW	13AW
Motor	2 Hp 115/220v 1ph or 208/230/460 3ph	2 Hp 115/220v 1ph or 208/230/460 3ph
Band Wheel Dia.	14"	18"
Blade	1" x .035" x 10'-10 1/2"	1" x .035" x 13'- 11"
Bed Height	25 1/2"	25 1/2"
Vise Opening	14"	23"
Blade Speeds	62-390 fpm Variable speed	65-345 fpm Variable speed
90° Cutting Capacity		
Round	9"	13"
Rectangular	8" x 13"	10" x 20"
45° Cutting Capacity		
Round	8"	12"

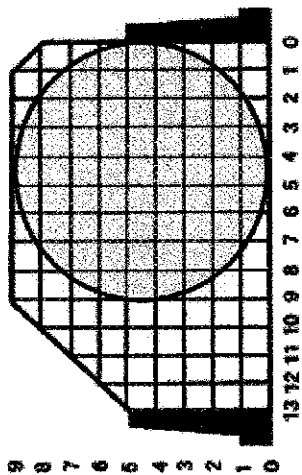
Rectangular	8" x 8"	9" x 13"
Width	69"	86"
Depth (with stock stop)	46" (51 1/2")	46" (51 1/2")
Height (head-up)	63"	70"
Height (head-down)	43"	38 1/2"
Net Weight	800 lbs.	1150 lbs.

Return to top

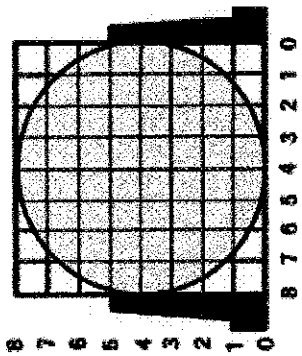
Cutting Capacities:

H9AW

Capacity at 90° (inches)



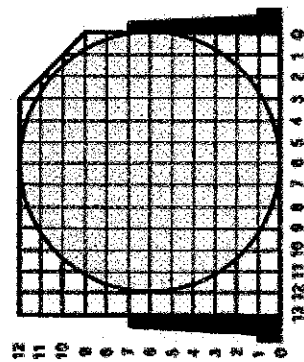
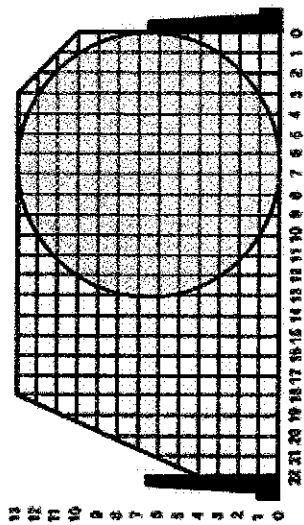
Capacity at 45° (inches)



13AW

Capacity at 90° (inches)

Capacity at 45° (inches)



[Return to top](#)

Accessories:

ACC05	3 Steel-Faced Casters
ACC06	3 Rubber-Faced Casters
BT01	Bandsaw Blade Tension Gauge
DT20	Discharge Tray
P10	Stock Stand Assembly 21" - 30"
RT0516	Roller Table Assembly 5' x 16"
RT1016	Roller Table Assembly 10' x 16"
9A1900C	Set of Carbide Blade Guides - Installed

[Return to top](#)

[CNC] [Drills] [Lathes] [Grinders] [Mills] [Saws] [Fabricating]

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1996

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Service Center Goshen
Indiana
811 Eisenhower Drive South
Goshen, IN 46526
Phone: 574-533-0371 FAX: 574-533-0403

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Last modified: March 19, 2002

**SOF Weapons Training Facility
Fort Bragg, North Carolina**

DACA21-03-R-0024

**LINE ITEM #10
VERTICAL BAND SAW**

Clausing

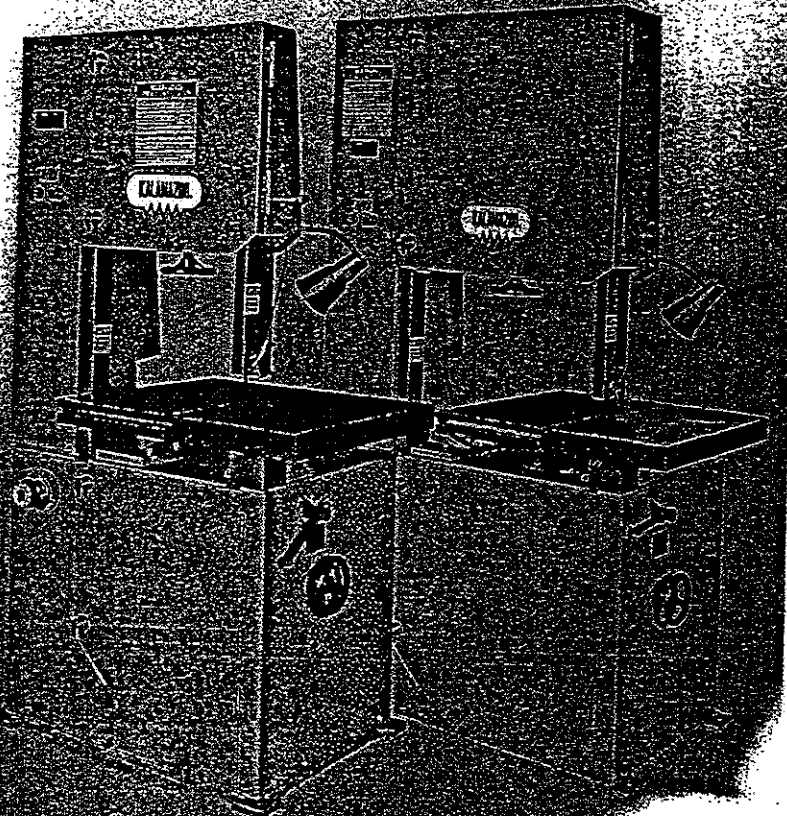
INDUSTRIAL INC.

KALAMAZOO

Vertical Band Saws

Standard Features

- 230/460/60/3 Electricals
- Magnetic Starter with 110V Control Circuit and Overload Protection
- Three (3) H . P. TEFC Motor
- Dual Range Transmission
- 1/2" and 3/4" Chevron type Blade Guides with Back-Up Roller
- 26-3/4" x 29" Heavy Duty Cast Iron Table with two-way tilt (5°L & 45°R)
- 26-3/4" x 29" Heavy Duty Cast Iron Table with two-way tilt (15°L & 45°R) Four (4) T-Slots on Top (Hydraulic table only) Table Travel 13"
- Bonded Rubber Band Wheels
- 110V Work Light
- Built-in Air Chip Blower
- Blade Tension Indicator
- Blade Speed Indicator
- 3/4" Carbon Hardback Blade
- Locking Band Wheel Doors
- Operation and Parts Manual
- Two (2) Year Limited Warranty



Optional Equipment

- 1" Capacity Blade Welder, Shear and Flash Grinder
- Rip Fence
- Miter Gauge
- 1/8", 1/4", 3/8", 1/2" and 5/8" Band
- Chevron Guide Inserts

Specifications

	V2012F	V2012H	V2812F	V2812H
Throat	20"	20"	28"	28"
Work Height	12'-2"	12'-2"	12"	12"
Drive Motor (hp)	3	3	3	3
Blade Length	159"-162"	159"-162"	197"-199"	197"-199"
Blade Width	7/8"-1"	1/8"-1"	1/8"-1"	1/8"-1"
Blade Speed (fpm)	50-5200	50-5200	50-5200	50-5200
Dimensions				
Length	51"	51"	61"	61"
Width	41"	41"	41"	44"
Height	81"	81"	91"	91"
Net Weight (lbs)	1,390	1,500	1,650	1,760
Shipping Weight (lbs)	1,640	1,650	1,800	1,900

Simply the Best

Clausing

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 FAX (616) 345-7947 • Web Site: www.clausing-industrial.com

LINE ITEM #11
OVEN

The "No Compromise"



Dual Furnace

MODEL C-2121

SESS. Beamed by those who desire a hardening furnace, a direct rack on separate furnace for tempering, drawing, all within a minimum floor space. The two chambers allow immediate tempering or drawing after quenching without waiting for the hardening furnace to cool to the lower temperature required.

CONTROLS: Both chambers are equipped with the advanced electronic control panel. The microprocessor and digital readout (MCR) is standard. The MCR is a microprocessor which controls the furnace temperature and provides a digital readout of the temperature. The MCR is also equipped with a digital readout of the temperature.

ELEMENTS: High temperature vanadium nitride coated and vanadium nitride coated elements are standard. The elements are made of high purity vanadium nitride.

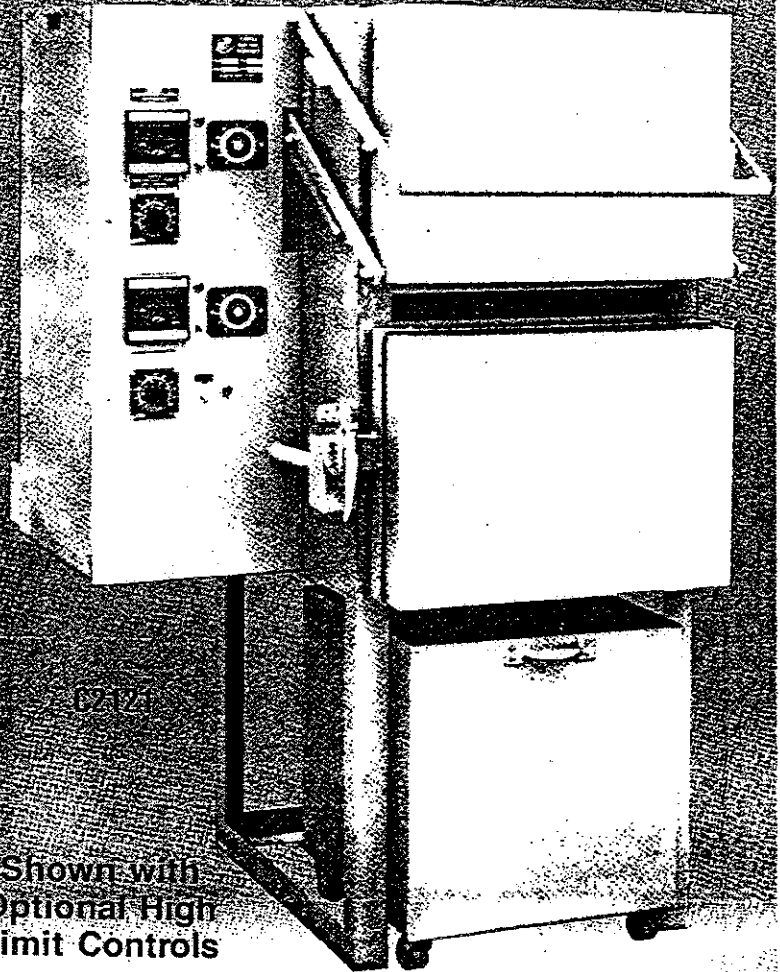
GENERAL CONSTRUCTION: The furnace is constructed of mild steel and is painted with a high quality paint. The furnace is constructed of mild steel and is painted with a high quality paint. The furnace is constructed of mild steel and is painted with a high quality paint.

The furnace is equipped with a digital readout (MCR) which provides a digital readout of the temperature. The MCR is a microprocessor which controls the furnace temperature and provides a digital readout of the temperature.

The furnace is equipped with a digital readout (MCR) which provides a digital readout of the temperature. The MCR is a microprocessor which controls the furnace temperature and provides a digital readout of the temperature.

The furnace is equipped with a digital readout (MCR) which provides a digital readout of the temperature. The MCR is a microprocessor which controls the furnace temperature and provides a digital readout of the temperature.

Door Seals are available for inert protective atmosphere.



Shown with
Optional High
Limit Controls

SPECIFICATIONS

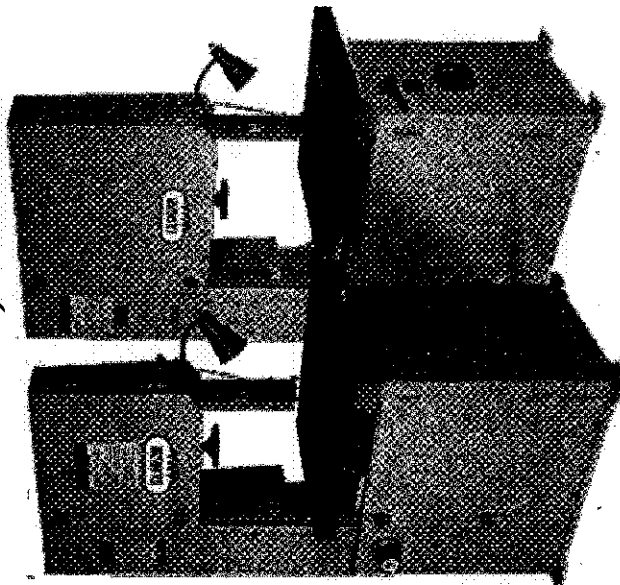
MODEL	UPPER CHAMBER	LOWER CHAMBER	OVER ALL	MAXIMUM TEMP UPPER	MAXIMUM TEMP LOWER	KW INPUT	WGT.
	W L H	W L H	W L H				
C-2121	12' 20" H	12' 12" H	36' 36" 56"	2250°F	1250°F	8.5	785
C-2121-130	12' 20" H	12' 12" H	36' 36" 56"	2250°F	1250°F	8.5	785



Home	Catalogs			
CNC	Drills	Lathes	Saws	
Grinders	Mills	Fabrication		

Models

V2012F, V2012H,
V2812F, V2812H



Four NEW Vertical Band
Saws
From KALAMAZOO
SAW

Features

Specifications

Accessories

Features

- 230/460/60/3 Electrics
- Magnetic Starter with 110V Control Circuit and Overload Protection
- Three (3) H . P. TEFC Motor

- Dual Range Transmission
- 1/2" and 3/4" Carbide-Faced Chevron type Blade Guides with Back-Up Roller
- 26-3/4" x 29 Heavy Duty Cast Iron Table with two-way tilt (15°L & 45°R)
- 26-3/4" x 29" Heavy Duty Cast Iron Table with two-way tilt (15°L & 45°R) Four (4) T-Slots on Top (Hydraulic table only) Table Travel 13"
- Bonded Rubber Band Wheels
- 110V Work Light
- Built-in Air Chip Blower
- Blade Tension Indicator
- Blade and Speed Selector Chart
- Blade Speed Indicator
- 3/4" Carbon Hardback Blade
- Locking Band Wheel Doors
- Operation and Parts Manual
- Two (2) Year Limited Warranty

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Specifications

	V2012F	V2012H	V2812F	V2812H
Throat	20"	20"	28"	28"
Work Height	12 3/4"	12 3/4"	12"	12"
Drive Motor (Hp)	3	3	3	3
Blade Length	159"-162"	159"-162"	197"-199"	197"-199"
Blade Width	1/8"-1"	1/8"-1"	1/8"-1"	1/8"-1"
Blade Speed (fpm)	50-5200	50-5200	50-5200	50-5200
Dimensions				
Length	51"	51"	61"	61"
Width	41"	44"	41"	44"
Height	81"	81"	91"	91"
Net Weight (lbs.)	1,390	1,500	1,650	1,760
Shipping Weight (lbs.)	1,540	1,650	1,800	1,900

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Accessories

- 1" Capacity Blade Welder, Shear and Flash Grinder

- Rip Fence
- Miter Gauge
- 1/8", 1/4", 3/8", 1/2", 5/8", 3/4" and 1" Chevron Guide Inserts

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Last modified: February 27, 2002

SOF Weapons Training Facility
Fort Bragg, North Carolina

DACA21-03-R-0024

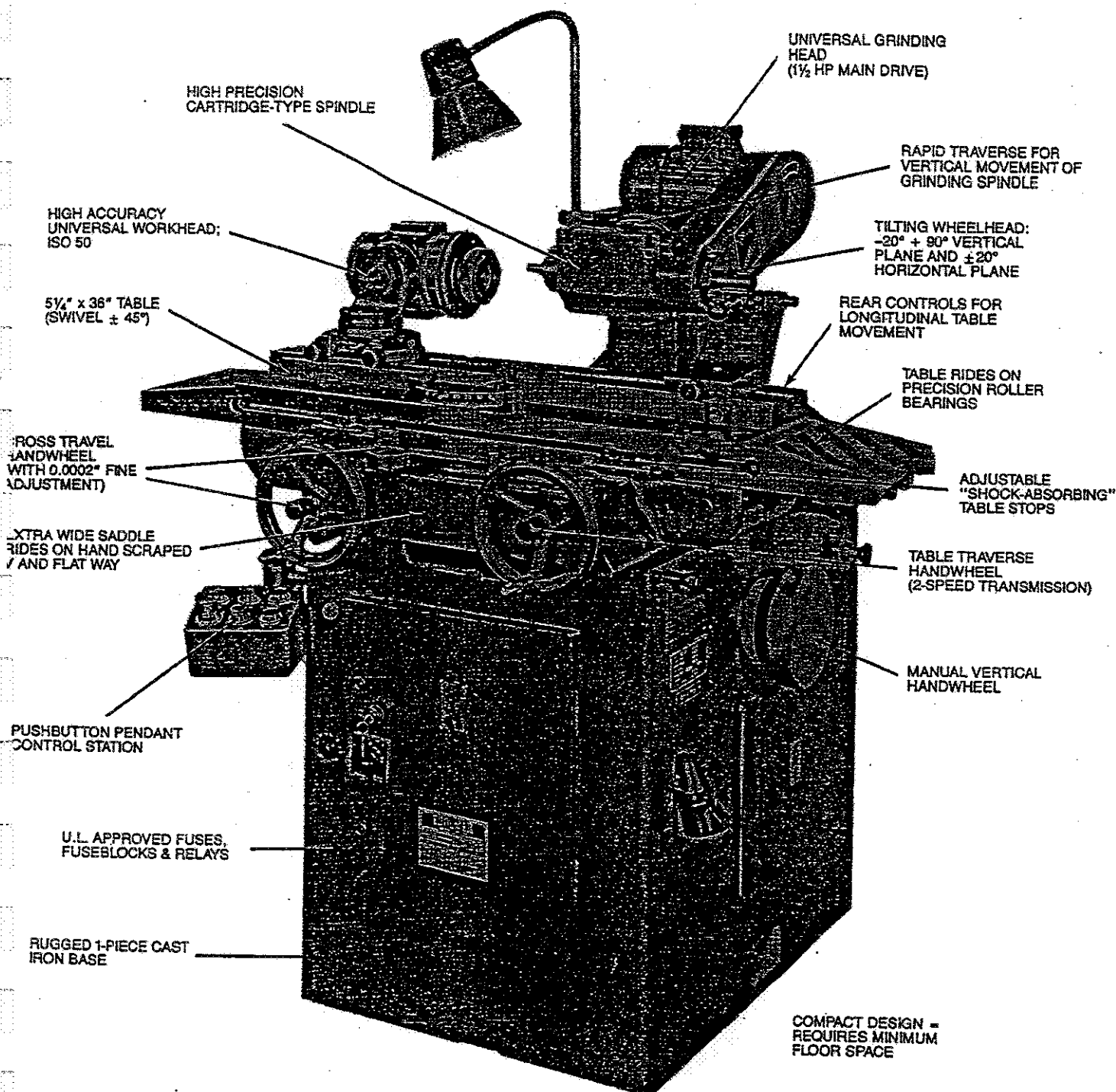
LINE ITEM #12
TOOL & CUTTER GRINDER

**SOF Weapons Training Facility
Fort Bragg, North Carolina**

DACA21-03-R-0024

**LINE ITEM #13
AUTOMATED MILL**

HANDLE A WIDE VARIETY OF GRINDING AND SHARPENING JOBS WITH BETTER COST EFFICIENCY.



****Here is a precision crafted, compact, rugged, but cost-efficient grinder that can handle a wide range of grinding/sharpening jobs on cutting tools, including milling cutters, taps and reamers. And, with proper selection of attachments, you can use it on cylindrical, internal and surface grinding jobs.**

The versatile Kowary Universal Tool and Cutter Grinder, Model NUA-25M, is a proven machine with superb accuracy. Its ruggedness, low investment cost, and ease of operation have earned it wide acceptance in the U.S.A. and around the world.

Longitudinal table travel movement is via roller bearing system with manual feed handwheels located both in front and rear of the machine. Cross travel saddle is supported on a wide base with a V and flat hand scraped ways for superior accuracy.

General Specifications

CAPACITY:

Max. distance between centers .....	.25"
Max. distance between tailstock & workhead .....	.19 1/2"
Universal workhead taper	ISO 50
Max. swing b.c.; diameter .....	.9.8"
Max. workpiece weight .....	.88 lbs.

TABLE:

1 T-slot, size .....	.1/2" wide
Working surface (sub-table) .....	.36" x 5 1/4" (52" x 9")
Table 2-speed movement .....	.3/4" and 5" /Rev.
Table swivel angle (table ratio setoff) .....	.± 45° (± 1:6 thru 1:50 graduation)

RANGE OF MOVEMENT:

Longitudinal movement of table (max.) .....	.17"
Cross movement of saddle (graduation 0.001") .....	.9 1/2" (.200" Rev.)
Fine graduation cross movement .....	.0.0002" (.004" /Rev.)
Power vertical movement of wheelhead (graduation) .....	.10 1/2" (0.0005")
Wheelhead tilts/vertical plane .....	.-20°, +90°
Wheelhead swivels/horizontal plane .....	.180°
From wheel spindle center to table: min./max. ....	.3 1/2" / 13 3/4"
Universal Workhead swivel, 2 planes .....	.± 90°
Grinding wheel spindle .....	.4025 & 5635 RPM
Grinding wheel spindle motor .....	.1 1/2 HP
Grinding wheel dia. x width (bore) .....	.5 3/4" x 1/2" (1 1/4")

Overall machine dimensions .....	.53" x 50" x 64"H
Net weight of machine .....	.2,255 lbs.

TOOLMEX

Toolmex Corp. Machinery Division is your assurance of quality, designed to meet your toughest requirements . . . Thousands installed in the U.S.A. . . . Computer-multimillion dollar spare parts and options centers . . . Factory service technicians based coast-to-coast . . . Full warranty covering parts and labor . . . Fast deliveries . . . Trade-in and financing available.

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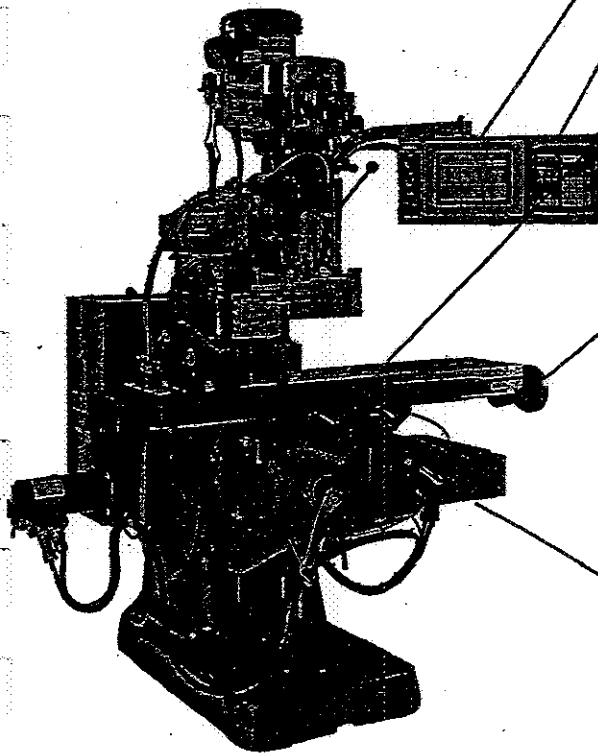
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EZTRAK

Factory-fit 2-axis control and power feed. It's the easy and inexpensive "step up" that enhances manual machining. Available with 3rd axis option.

EZTRAK



New operator control station located on the head for ease of operation.

Bridgeport's control features a 9" monochrome monitor. Fill-in-the-blank format helps you enter machining data quickly.

Machining data is entered by using a simple keypad.

600 Lb. table load.

300 Lb. table load.

Control stores up to 1000 individual operations, plus you can call up to 10 routine mill and 4 routine drill cycles that are pre-programmed.

Machine operation alternates between automatic and manual at the discretion of the operator.

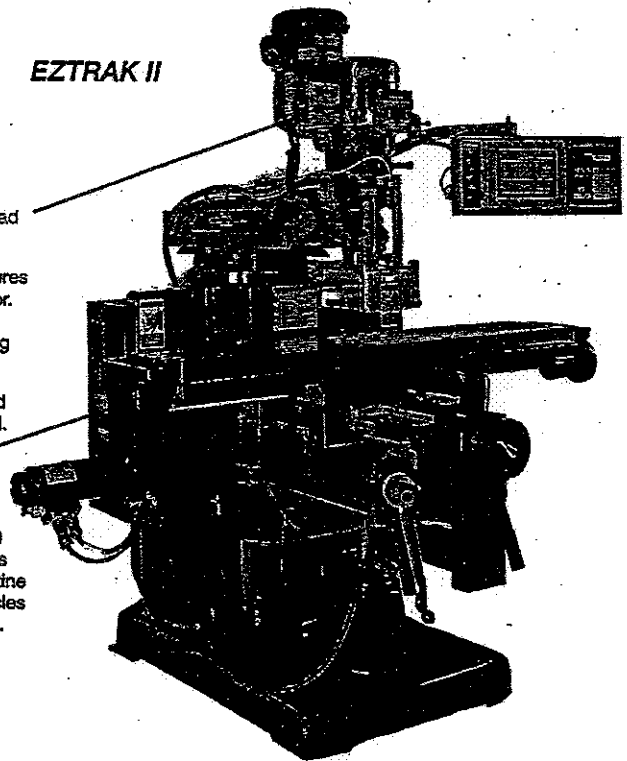
NEMA-12 electrical enclosure to NFPA specifications.
UL Listed

Power feeds for both X-axis (longitudinal) and Y-axis (cross) are infinitely variable for maximum metal-cutting flexibility. Rapid traverse up to 100 ipm. Powerful DC servo motors let you make cuts consistent with 3 HP machining.

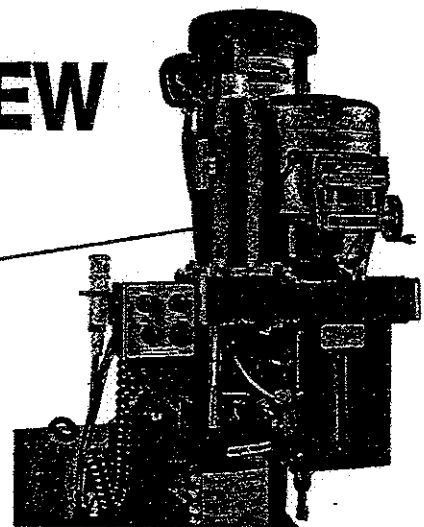
Automatic control of the quill. Full contouring capability for both EZTRAK and EZTRAK II machines. Maintains full manual control of the quill.

All Electrical Components  Listed or Recognized

EZTRAK II



NEW

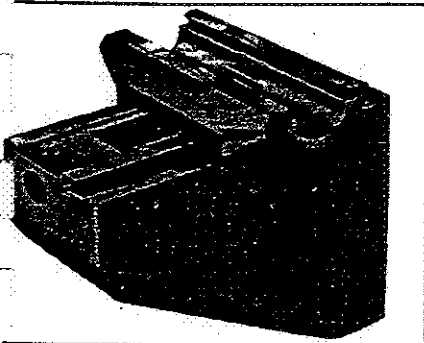


THIRD AXIS OPTION

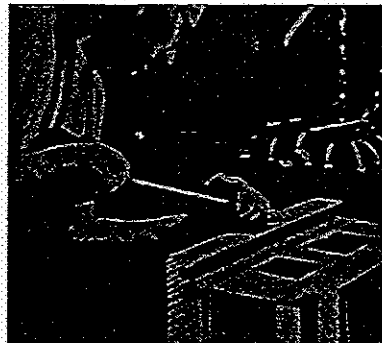
- Full automatic control of the quill for R-8, Erickson 30 Q/C, or Universal spindles
- Full contouring capability for both EZTRAK and EZTRAK II machines.
- Maintains full manual control of the quill.
- The 3rd axis housing contains an integral micro glass scale for manual DRO operation.
- Quill assembly is driven by a 19 in/lb. drive motor, 1:1 pulley and narrow cog-type toothed belt.

Remote Start/Stop control switch is optional.

Installation will reduce Quill travel by 0.5 inches for a total of 4.5 inches, see specifications on back.



chrome-plated ways (standard on EZTRAK) for long life. Surfaces plated to a uniform thickness approximately 0.05 mm (0.002") include top of cross (longitudinal movement), top of knee (cross movement), and cross slide to table gibs.



All alignment ways and gibs are completely hand scraped to within tenths of a thousandth, ensuring full bearing support.

EZTRAK®

SPECIFICATIONS

Range	SERIES I	SERIES II
Table travel (X-axis)	30 in. (762 mm)	32 in. (813 mm)
Saddle travel (Y-axis)	12 in. (305 mm)	14.5 in. (368 mm)
Quill travel	5 in. (127 mm)	5 in. (127 mm)
Quill travel w/3rd axis	4.5 in. (114 mm)	4.5 in. (114 mm)
Knee travel (Z-axis)	16 in. (406 mm)	12 in. (305 mm)
Ram travel	12 in. (305 mm)	17 in. (432 mm)
Throat distance (min.)	6.75 in. (171 mm)	8 in. (152 mm)
Throat distance (max.)	18.75 in. (476 mm)	22 in. (559 mm)
Table to spindle nose gage line (min.)	2.5 in. (64 mm)	5 in. (127 mm)
Table to spindle nose gage line (max.)	18.25 in. (463 mm)	17 in. (432 mm)

Overall size	48 x 9 in. (1219 x 229 mm)	58 x 11 in. (1473 x 279 mm)
Working surface	48 x 9 in. (1219 x 229 mm)	58 x 11 in. (1473 x 279 mm)
Height above floor (max.)	47.4 in. (1204 mm)	47 in. (1194 mm)
Maximum uniform load	300 lbs. (136 kg)	600 lbs. (272 kg)
T-slots	3 @ 2.5 in. (64 mm) centers	3 @ 2.5 in. (64 mm) centers
T-slot size	.625 in. (16 mm)	.625 in. (16 mm)

Floor area (door open)	8.2 x 7.3 ft. (2.5 x 2.2 m)	9 x 7.9 ft. (2.7 x 2.4 m)
Floor area (door closed)	8.2 x 5.3 ft. (2.5 x 1.6 m)	9 x 5.8 ft. (2.7 x 1.8 m)
Height	6.8 ft. (2.1 m)	6.9 ft. (2.1 m)
Net weight	2340 lbs. (1061 kg)	3900 lbs. (1769 kg)
Shipping weight	2900 lbs. (1315 kg)	4700 lbs. (2132 kg)

Spindle	SERIES I AND SERIES II
AC spindle motor rating (continuous)	2 hp (1.5 kw)
Power rating	3 hp (2.2 kw)
(Duty cycle)	30 min. duty rated
Spindle speed Hi	500 - 4200 rpm
Spindle speed Low	60 - 500 rpm
Spindle diameter	1.875 in. (48 mm)
Quill diameter	3.375 in. (86 mm)

Standard Spindle Taper	
Spindle taper	R-8
Tooling	R-8 collets

Optional Spindle Taper	
Spindle Taper	#30 ISO
Tool Holder	Erickson Quickchange #30 ISO
Spindle Taper	#200 Universal
Tool Holder	Universal #200 Kwik switch

Ball screws	
Diameter	1.25 in. (32 mm)
Pitch	0.200 in. (5.08 mm)

Positioning	
Auto (X,Y)	100 ipm (2540 mm/min.)
Manual (X,Y)	100 ipm (2540 mm/min.)
Feedrate range (X,Y)	0.1-100 ipm (2-2540 mm/min.)
Minimum increment	0.0001 in. (0.003 mm)

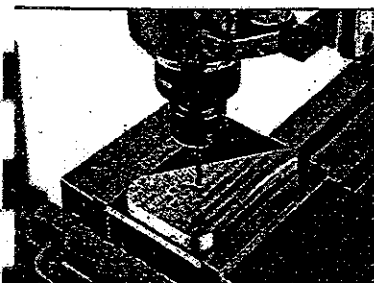
Machine and Control Performance	
Positioning accuracy	± 0.001 in. (0.025 mm) over saddle
Positioning repeatability	± 0.0008 in. (0.02 mm) over saddle
Input resolution	0.0001 in. (0.003 mm)
Servo resolution	0.0001 in. (0.003 mm)
Display resolution	0.0001 in. (0.003 mm)
BPC2M PC Control system manufactured by Bridgeport Machines	
Full 3-axis DRO	
Simultaneous 2-axis linear or 2-axis circular interpolation	
9-inch monochrome conversational display	
Absolute and incremental programming	
Automatic corner rounding	
Mathematical help modes	
Powerful canned cycles for machining arcs, diagonals, circles, bolt hole patterns, pocket milling and more	
Cutter diameter compensation	
English/metric conversion	
1000 block program storage	
Disk storage: (standard) 3.5 in. diskette, HD 1.44 Mb (12,000 ft.)	
32MB PC Flashdisk	
Maintenance, diagnostic and program error message display	
Part program loading: RS-232 bi-directional communication link	
Input/Output: 1 RS-232 serial port	
Maintenance: Diagnostic routines embedded in system	

Power	
Input power: 208/230/460 volts 3 phase, 50/60 cycles	
Power capacity: 4kVA	

Standard Features	
Chrome plated ways	
Electrics: NFPA/NEMA-12 Standards, UL Listed.	
Color: Machine Tool Gray	

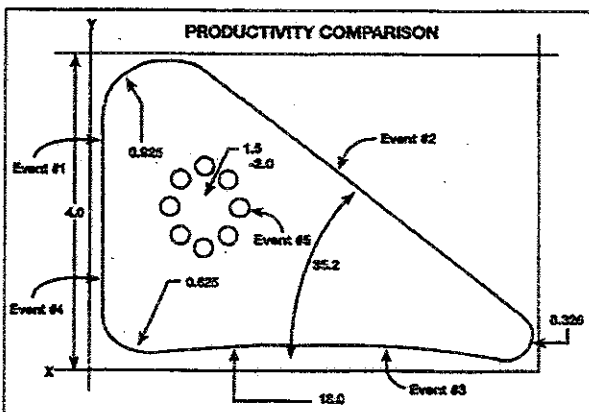
Optional Features	
3rd Axis Control	
Mist or flood coolant system	
4 or 7 inch Riser block	
Automatic centralized lubrication system	
Power drawbar for R-8 or 30 QC Spindle	
Remote start/stop control switch	

NOTE: Specifications Subject to Change Without Notice.
* Knee Travel Reduced by 1" with Flood Coolant.



This part requires milling of 3 radii, an angle, 1 arc...plus a bolt hole pattern with 8 holes. Now you can get it done, without a rotary table, with 5 simple "operations" that are programmed in 8 easy steps. Comparison of setup and machining time:

conventional mill...107.0 minutes
EZTRAK.....26.5 minutes



**SOF Weapons Training Facility
Fort Bragg, North Carolina**

DACA21-03-R-0024

**LINE ITEM #14
AUTOMATED LATHE**

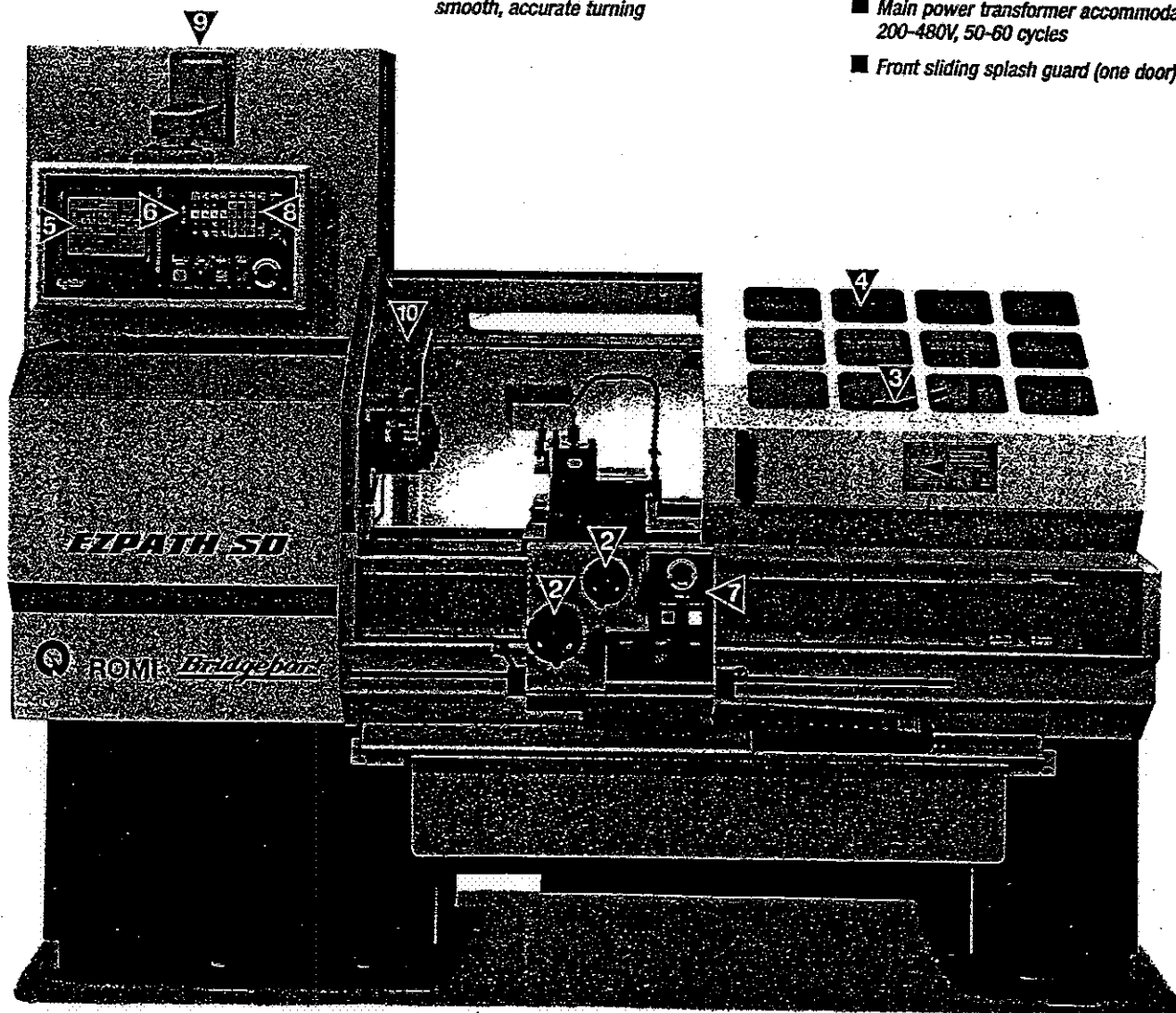
Built For Speed & Convenience

EZPATH FEATURES:

- 1 Two-speed variable AC motor with direct-driven CNC headstock on EZPATH SD & IISD for powerful, smooth and quiet operation
- 2 Dual electronic handwheels can be set to move with the carriage or disengaged to slide on their own track
- 3 Manual tailstock with dual clamps and tang stop for heavy drilling, inch and metric quill graduations
- 4 Standard sliding door is tilted back, with a large window, for a clear view of the work area
- 5 Bridgeport 2-axis control with 9-inch grayscale monitor
- 6 Built-in disk drive and RS-232 port
- 7 Remote operator panel conveniently mounted on the apron
- 8 Sealed keyboard
- 9 Single-unit CNC controller can be removed for easy maintenance
- 10 Chuck guard

Additional Features:

- Automatic lubrication system
- CNC headstock features two angular contact spindle bearings in front, one large roller bearing in the rear for precise accuracy and repeatability. All bearings are synthetically greased for life
- Headstock provides a variable speed motor with constant surface speed control
- Coolant system with 3/4 HP (0.54 Kw) pump and 25-gallon (95 liter) tank
- Rear splash guard with removable door
- Removable chip pan for easy cleaning
- Indexable tool post and holder set for square cutting tools and boring bars
- Sealed work-light panel spans the bed length to provide bright illumination of entire turning area
- Main power transformer accommodates 200-480V, 50-60 cycles
- Front sliding splash guard (one door)
- Spindle control lever with dynamic brake within easy reach
- All cast iron construction
- Optional spindles with large through-holes for EZPATH SD and EZPATH IISD
- Precision ballscrews
- Induction hardened & ground ways with Turcite-coated saddle and cross slide for smooth, accurate turning



Specifications

EZPATH SD

EZPATH IISD

EZPATH IIIS

EZPATH IIISL

CAPACITY

Height of centers	8.46 in. (215 mm)	10.03 in. (255 mm)	11.41 (290 mm)	13.77 in. (350 mm)
Distance between centers	40 in. (1000 mm)	40, 60 or 80 in. (1000, 1500 or 2000 mm)	40, 80 or 120 in. (1000, 2000 or 3000 mm)	40, 80 or 120 in. (1000, 2000 or 3000 mm)
Swing over bed	17 in. (431 mm)	20 in. (508 mm)	23 in. (584 mm)	27 in. (686 mm)
Swing over cross slide	8 in. (203 mm)	10 in. (254 mm)	12.59 in. (320 mm)	16.53 in. (420 mm)
Swing over carriage wings	15.75 in. (400 mm)	17.7 in. (450 mm)	17.3 (440 mm)	21.25 in. (540 mm)
Cross-slide (X) travel	8.66 (220 mm)	11 in. (280 mm)	12.59 in. (320 mm)	14.96 in. (380 mm)

JED

Width	12 in. (305 mm)	13.5 in. (340 mm)	15 in. (380 mm)	15 in. (380 mm)
Height	13 in. (332 mm)	12.5 in. (320 mm)	15 in. (380 mm)	15 in. (380 mm)

HEADSTOCK

Spindle nose	A2-5 ASA	A2-6 ASA	A2-8 ASA	A2-8 ASA
Hole diameter through spindle	2.08 in. (53 mm)	2.5 in. (65 mm)	3.15 in (80 mm)	3.15 in (80 mm)
Range of spindle speeds	50 to 4000 RPM	40 to 3000 RPM	32 to 2500 RPM	25 to 2000 RPM
Range I	50 to 2000 RPM	40 to 1500 RPM	32 to 625 RPM	25 to 500 RPM
Range II	100 to 4000 RPM	80 to 3000 RPM	32 to 1250 RPM	500 to 2000 RPM
Spindle nose - Option 1	A2-6 ASA	A2-8 ASA	■	■
Hole diameter through spindle	2.56 in. (65 mm)	3.15 in. (80 mm)	■	■
Range of spindle speeds	40 to 3000 RPM	20 to 2000 RPM	■	■
Range I	40 to 1500 RPM	20 to 1000 RPM	■	■
Range II	80 to 3000 RPM	40 to 2000 RPM	■	■
Spindle nose - Option 2	D1-6 CAMLOCK	D1-8 CAMLOCK	■	■
Hole diameter through spindle	2.56 in. (65 mm)	3.15 in. (80 mm)	■	■
Range of spindle speeds	40 to 3000 RPM	20 to 2000 RPM	■	■
Range I	40 to 1500 RPM	20 to 1000 RPM	■	■
Range II	80 to 3000 RPM	40 to 2000 RPM	■	■

EDS

Longitudinal rapid traverse (z-axis)	394 ipm (10,000 mm/px)	394 ipm (10,000 mm/px)	394 ipm (10,000 mm/px)	394 ipm (10,000 mm/px)
Cross rapid traverse (x-axis)	295 ipm (7500 mm/px)	295 ipm (7500 mm/px)	295 (7500 mm/px)	295 (7500 mm/px)

TAILSTOCK

Maximum quill travel	4.7 in. (120 mm)	5.11 in. (130 mm)	7.08 in. (180 mm)	7.08 in. (180 mm)
Quill diameter	2.36 in. (60 mm)	3.15 in. (80 mm)	3.94 in. (100 mm)	3.94 in. (100 mm)
Quill taper hole	4 MT	4 MT	5 MT	5 MT

MOTOR

HP in motor	10 HP (7.3 Kw)	15 HP (11 Kw)	20 HP (15 Kw)	20 HP (15 Kw)
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DIMENSIONS AND WEIGHTS

Clear space required (approx.)	51" x 98" (1300 x 2500 mm)	60" x 107" (1524 x 2700 mm)	63" x 107" (1600 x 2700 mm)	63" x 107" (1600 x 2700 mm)
Approximate net weight	4000 lbs. (1814 kg)	6284 lbs. (2850 kg)	7040 lbs. (3190 kg)	7040 lbs. (3190 kg)

NOTE: Dimensions and specifications throughout this booklet subject to change without prior notice

Notice: Bridgeport Machines, Inc. provides instructions for the safe use of this equipment. Operation of this equipment may cause injury if the protective devices are removed. A comprehensive safety manual is provided with all machines offered by Bridgeport Machines, Inc. and recommended safe operating procedures must be adhered to.



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